



Fishery Statistics of the Western Pacific

Volume 19

Territory of American Samoa (2002)
Commonwealth of the Northern Mariana Islands (2002)
Territory of Guam (2002)
State of Hawaii (2002)

Compiled by

David C. Hamm, Nathan T. S. Chan, and Craig J. Graham

June 2004



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Administrative Report H-04-08

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PREFACE

Over the years, the demand for data and information concerning marine fisheries has greatly increased. To help meet these increased needs in the central and western Pacific areas, the National Marine Fisheries Service's (NMFS) Southwest Fisheries Science Center (SWFSC) initiated the Western Pacific Fishery Information Network (WPacFIN) to assist Pacific island fisheries agencies in upgrading their data collecting, processing, and reporting capabilities.

In 1982, these agencies formed a Fisheries Data Coordinating Committee (FDCC) and a FDCC Technical Subcommittee to help guide, coordinate, and monitor all of their fisheries data-related activities. Significant progress has been made by all participating agencies, particularly in the areas of upgrading data collecting and processing systems.

In a major step to improve and coordinate the data reporting and distribution systems of the agencies, in May 1985 the FDCC agreed to produce a combined document reporting each island's major fisheries statistics. Production of the document would be the responsibility of the FDCC Technical Subcommittee and would be coordinated by the WPacFIN Program Manager. Each agency would supply the data required to produce the tables and graphs for its respective chapter, and central WPacFIN staff would produce and distribute the document as part of the Administrative Report Series.

In April 2003, NMFS created a new Pacific Islands Region comprised of the Pacific Islands Fisheries Science Center (PIFSC, formerly SWFSC's Honolulu Laboratory) and the Pacific Islands Regional Office (PIRO, formerly SWRO's Pacific Islands Area Office). As such, this report is now affiliated with PIFSC rather than SWFSC.

This is the nineteenth volume in the series "Fishery Statistics of the Western Pacific" and contains year 2002 summaries of commercial landings for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and Hawaii. As with previous volumes, this volume is divided into sections, one each for the major island areas.

CONTENTS

	Page
I. Background	I.1
Progress	I.2
Precautions	I.2
Contents	I.3
Definitions	I.3
Graphics	I.4
II. American Samoa	
Introduction	II.1
Special Note on Data Revisions	II.2
Data Collecting System	II.2
Data Processing System	II.5
Data Quality and Cross Validation: American Samoa Longline Example	II.7
Data Reporting System	II.8
Interpretation of Statistics	II.12
Tables and Figures	II.13
II. Commonwealth of the Northern Mariana Islands 2002 Fishery Statistics	
Introduction	III.1
Data Collecting System	III.2
Data Processing System	III.3
Data Reporting System	III.3
Tables and Figures	III.6
III. Guam 2002 Fishery Statistics	
Introduction	IV.1
Commercial Landings Data Collecting System	IV.2
Commercial Landings Data Processing System	IV.3
Commercial Landings Data Reporting System	IV.3
Interpretation of Statistics	IV.5
Tables and Figures	IV.6
IV. State of Hawaii 2002 Fishery Statistics	
Introduction	V.1
Data Collecting System	V.2
Data Processing System	V.3
Data Reporting System	V.3
Tables and Figures	V.7

LIST OF AMERICAN SAMOA SUMMARY TABLES

Table	Title	Page
II.1.1	American Samoa Annual 2002 Estimated Commercial Landings	II.13
II.1.2	American Samoa January 2002 Estimated Commercial Landings	II.15
II.1.3	American Samoa February 2002 Estimated Commercial Landings	II.16
II.1.4	American Samoa March 2002 Estimated Commercial Landings	II.17
II.1.5	American Samoa April 2002 Estimated Commercial Landings	II.18
II.1.6	American Samoa May 2002 Estimated Commercial Landings	II.19
II.1.7	American Samoa June 2002 Estimated Commercial Landings	II.20
II.1.8	American Samoa July 2002 Estimated Commercial Landings	II.21
II.1.9	American Samoa August 2002 Estimated Commercial Landings	II.22
II.1.10	American Samoa September 2002 Estimated Commercial Landings	II.23
II.1.11	American Samoa October 2002 Estimated Commercial Landings	II.24
II.1.12	American Samoa November 2002 Estimated Commercial Landings	II.25
II.1.13	American Samoa December 2002 Estimated Commercial Landings	II.26

LIST OF CNMI SUMMARY TABLES

Table	Title	Page
III.1.1	CNMI 2002 Estimated Commercial Landings	III.6
III.1.2	CNMI January 2002 Estimated Commercial Landings	III.7
III.1.3	CNMI February 2002 Estimated Commercial Landings	III.8
III.1.4	CNMI March 2002 Estimated Commercial Landings	III.9
III.1.5	CNMI April 2002 Estimated Commercial Landings	III.10
III.1.6	CNMI May 2002 Estimated Commercial Landings	III.11
III.1.7	CNMI June 2002 Estimated Commercial Landings	III.12
III.1.8	CNMI July 2002 Estimated Commercial Landings	III.13
III.1.9	CNMI August 2002 Estimated Commercial Landings	III.14
III.1.10	CNMI September 2002 Estimated Commercial Landings	III.15
III.1.11	CNMI October 2002 Estimated Commercial Landings	III.16
III.1.12	CNMI November 2002 Estimated Commercial Landings	III.17
III.1.13	CNMI December 2002 Estimated Commercial Landings	III.18

LIST OF GUAM SUMMARY TABLES

Table	Title	Page
IV.1.1	Guam 2002 Estimated Commercial Landings	IV.6
IV.1.2	Guam January 2002 Estimated Commercial Landings	IV.7
IV.1.3	Guam February 2002 Estimated Commercial Landings	IV.8
IV.1.4	Guam March 2002 Estimated Commercial Landings	IV.9
IV.1.5	Guam April 2002 Estimated Commercial Landings	IV.10
IV.1.6	Guam May 2002 Estimated Commercial Landings	IV.11
IV.1.7	Guam June 2002 Estimated Commercial Landings	IV.12
IV.1.8	Guam July 2002 Estimated Commercial Landings	IV.13
IV.1.9	Guam August 2002 Estimated Commercial Landings	IV.14
IV.1.10	Guam September 2002 Estimated Commercial Landings	IV.15
IV.1.11	Guam October 2002 Estimated Commercial Landings	IV.16
IV.1.12	Guam November 2002 Estimated Commercial Landings	IV.17
IV.1.13	Guam December 2002 Estimated Commercial Landings	IV.18

LIST OF HAWAII SUMMARY TABLES

Table	Title	Page
V.1.1	Hawaii 2002 Reported Commercial Landings	V.7
V.1.2	Hawaii January 2002 Reported Commercial Landings	V.10
V.1.3	Hawaii February 2002 Reported Commercial Landings	V.12
V.1.4	Hawaii March 2002 Reported Commercial Landings	V.14
V.1.5	Hawaii April 2002 Reported Commercial Landings	V.16
V.1.6	Hawaii May 2002 Reported Commercial Landings	V.18
V.1.7	Hawaii June 2002 Reported Commercial Landings	V.20
V.1.8	Hawaii July 2002 Reported Commercial Landings	V.22
V.1.9	Hawaii August 2002 Reported Commercial Landings	V.24
V.1.10	Hawaii September 2002 Reported Commercial Landings	V.26
V.1.11	Hawaii October 2002 Reported Commercial Landings	V.28
V.1.12	Hawaii November 2002 Reported Commercial Landings	V.30
V.1.13	Hawaii December 2002 Reported Commercial Landings	V.32

LIST OF AMERICAN SAMOA FIGURES

Figure	Title	Page
II.1.1	American Samoa 2002 Monthly Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Fisheries Categories	II.27
II.1.2	American Samoa 2002 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	II.27
II.1.3	American Samoa 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	II.28
II.1.4	American Samoa 2002 Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	II.28
II.1.5	American Samoa 2002 Monthly Estimated Commercial Landings of Skipjack, Bigeye and Other Tunas	II.29
II.2.1	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	II.29
II.2.2	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Wahoo and Mahimahi	II.30
II.2.3	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Blue Marlin and Sailfish	II.30
II.2.4	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	II.31
II.2.5	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Skipjack, Bigeye, and Other Tunas	II.31
II.2.6	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of BMUS, Onaga, and Ehu	II.32
II.3.1	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Categories	II.32
II.3.2	American Samoa 1982-2002 Annual Trends of Total Estimated Commercial Landings	II.33
II.3.3	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings of Tunas, PMUS, and BMUS Landings	II.33
II.3.4	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	II.34
II.3.5	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Albacore and Yellowfin Tunas	II.34
II.3.6	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Skipjack, Bigeye, and Other Tunas	II.35

LIST OF AMERICAN SAMOA FIGURES (cont.)

Figure	Title	Page
II.4.1	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Wahoo	II.35
II.4.2	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Mahimahi	II.36
II.4.3	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Blue Marlin	II.36
II.4.4	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Sailfish	II.37
II.4.5	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Albacore	II.37
II.4.6	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Skipjack Tuna	II.38
II.4.7	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Yellowfin Tuna	II.38
II.4.8	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Bigeye Tuna	II.39
II.4.9	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Onaga	II.39
II.4.10	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Ehu	II.40

LIST OF CNMI FIGURES

Figure	Title	Page
III.1.1	CNMI 2002 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	III.19
III.1.2	CNMI 2002 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.19
III.1.3	CNMI 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.20
III.1.4	CNMI 2002 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.20
III.1.5	CNMI 2002 Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.21
III.2.1	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.21
III.2.2	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.22
III.2.3	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.22
III.2.4	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.23
III.2.5	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Parrotfish, Spiny Lobsters, and Rabbitfish	III.23
III.3.1	CNMI 1981-2002 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	III.24
III.3.2	CNMI 1981-2002 Annual Trends of Estimated Total Commercial Landings	III.24
III.3.3	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.25
III.3.4	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.25
III.3.5	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.26
III.3.6	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.26
III.3.7	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	III.27

LIST OF CNMI FIGURES (cont.)

Figure	Title	Page
III.4.1	CNMI 1981-2002 Monthly Estimated Commercial Landings of Wahoo	III.27
III.4.2	CNMI 1981-2002 Monthly Estimated Commercial Landings of Mahimahi	III.28
III.4.3	CNMI 1981-2002 Monthly Estimated Commercial Landings of Parrotfish	III.28
III.4.4	CNMI 1981-2002 Monthly Estimated Commercial Landings of Dogtooth Tuna	III.29
III.4.5	CNMI 1981-2002 Monthly Estimated Commercial Landings of Skipjack Tuna	III.29
III.4.6	CNMI 1981-2002 Monthly Estimated Commercial Landings of Yellowfin Tuna	III.30
III.4.7	CNMI 1981-2002 Monthly Estimated Commercial Landings of Emperors	III.30
III.4.8	CNMI 1981-2002 Monthly Estimated Commercial Landings of Bigeye Scad	III.31
III.4.9	CNMI 1981-2002 Monthly Estimated Commercial Landings of Onaga	III.31
III.4.10	CNMI 1981-2002 Monthly Estimated Commercial Landings of Spiny Lobster	III.32
III.4.11	CNMI 1981-2002 Monthly Estimated Commercial Landings of Rabbitfish	III.32

LIST OF GUAM FIGURES

Figure	Title	Page
IV.1.1	Guam 2002 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	IV.19
IV.1.2	Guam 2002 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	IV.19
IV.1.3	Guam 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	IV.20
IV.1.4	Guam 2002 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.20
IV.1.5	Guam 2002 Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	IV.21
IV.2.1	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	IV.21
IV.2.2	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Marlin	IV.22
IV.2.3	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	IV.22
IV.2.4	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.23
IV.2.5	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	IV.23
IV.3.1	Guam 1980-2002 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	IV.24
IV.3.2	Guam 1980-2002 Annual Trend of Estimated Total Commercial Landings	IV.24
IV.3.3	Guam 1980-2002 Annual Trends of Estimated Commercial Landings Tunas, PMUS, and BMUS Landings	IV.25
IV.3.4	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	IV.25
IV.3.5	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.26
IV.3.6	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Onaga and Bigeye Scad	IV.26
IV.3.7	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	IV.27
IV.4.1	Guam 1980-2002 Monthly Est. Commercial Landings of Wahoo	IV.27
IV.4.2	Guam 1980-2002 Monthly Est. Commercial Landings of Mahimahi	IV.28
IV.4.3	Guam 1980-2002 Monthly Est. Commercial Landings of Marlin	IV.28
IV.4.4	Guam 1980-2002 Monthly Est. Commercial Landings of Skipjack Tuna	IV.29

LIST OF GUAM FIGURES (cont.)

Figure	Title	Page
IV.4.5	Guam 1980-2002 Monthly Est. Commercial Landings of Yellowfin Tuna	IV.29
IV.4.6	Guam 1980-2002 Monthly Est. Commercial Landings of Onaga	IV.30
IV.4.7	Guam 1980-2002 Monthly Est. Commercial Landings of Bigeye Scad	IV.30
IV.4.8	Guam 1980-2002 Monthly Est. Commercial Landings of Dogtooth Tuna	IV.31
IV.4.9	Guam 1980-2002 Monthly Est. Commercial Landings of Reef Fish	IV.31
IV.4.10	Guam 1980-2002 Monthly Est. Commercial Landings of Bottomfish	IV.32

LIST OF HAWAII FIGURES

Figure	Title	Page
V.1.1	Hawaii 2002 Fisheries Categories: Reported Commercial Landings of Pelagic, Bottom, Reef, and Other	V.34
V.1.2	Hawaii 2002 Monthly Reported Landings of Tunas, PMUS, and BMUS	V.34
V.1.3	Hawaii 2002 Monthly Reported Landings of Wahoo, Mahimahi, and Billfish	V.35
V.1.4	Hawaii 2002 Monthly Reported Landings of Skipjack, Bigeye, and Swordfish	V.35
V.1.5	Hawaii 2002 Monthly Reported Landings of Albacore, Yellowfin, and Other Tunas	V.36
V.2.1	Hawaii 1948-2002 Average Monthly Reported Landings of Tunas, PMUS, and BMUS	V.36
V.2.2	Hawaii 1948-2002 Average Monthly Reported Landings of Wahoo and Mahimahi	V.37
V.2.3	Hawaii 1948-2002 Average Monthly Reported Landings of Striped and Blue Marlin	V.37
V.2.4	Hawaii 1948-2002 Average Monthly Reported Landings of Skipjack Tuna, Bigeye Tuna, and Swordfish	V.38
V.2.5	Hawaii 1948-2002 Average Monthly Reported Landings of Opakapaka, Onaga, and Uku	V.38
V.2.6	Hawaii 1948-2002 Average Monthly Reported Landings of Albacore, Yellowfin and Other Tuna	V.39
V.2.7	Hawaii 1948-2002 Average Monthly Reported Landings of Bigeye and Mackerel Scad	V.39
V.2.8	Hawaii 1948-2002 Average Monthly Reported Landings of Spiny Lobster and Saltwater Shrimp	V.40
V.3.1	Hawaii 1979-2002 Annual Trend of Fisheries Categories: Reported Commercial Landings of Pelagic, Bottom, Reef, and Other	V.40
V.3.2	Hawaii 1948-2002 Annual Trends: Total Reported Commercial Landings	V.41
V.3.3	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Tunas, PMUS, and BMUS Landings	V.41
V.3.4	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Wahoo and Mahimahi	V.42
V.3.5	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Albacore, Yellowfin, and Other Tunas	V.42
V.3.6	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Skipjack, Bigeye, and Swordfish	V.43

LIST OF HAWAII FIGURES (cont.)

Figure	Title	Page
V.3.7	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Striped and Blue Marlin	V.43
V.3.8	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Opakapaka, Onaga, and Uku	V.44
V.3.9	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Bigeye and Mackerel Scad	V.44
V.3.10	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Spiny Lobster and Saltwater Shrimp	V.45
V.4.1	Hawaii 1986-2002 Monthly Reported Commercial Landings of Yellowfin Tuna	V.45
V.4.2	Hawaii 1986-2002 Monthly Reported Commercial Landings of Skipjack Tuna	V.46
V.4.3	Hawaii 1986-2002 Monthly Reported Commercial Landings of Bigeye Tuna	V.46
V.4.4	Hawaii 1986-2002 Monthly Reported Commercial Landings of Opakapaka	V.47
V.4.5	Hawaii 1986-2002 Monthly Reported Commercial Landings of Bigeye Scad	V.47
V.4.6	Hawaii 1986-2002 Monthly Reported Commercial Landings of Mahimahi	V.48
V.4.7	Hawaii 1986-2002 Monthly Reported Commercial Landings of Striped Marlin	V.48
V.4.8	Hawaii 1986-2002 Monthly Reported Commercial Landings of Wahoo	V.49
V.4.9	Hawaii 1986-2002 Monthly Reported Commercial Landings of Onaga	V.49
V.4.10	Hawaii 1986-2002 Monthly Reported Commercial Landings of Blue Marlin	V.50
V.4.11	Hawaii 1986-2002 Monthly Reported Commercial Landings of Swordfish	V.50
V.4.12	Hawaii 1986-2002 Monthly Reported Commercial Landings of Albacore	V.51
V.4.13	Hawaii 1986-2002 Monthly Reported Commercial Landings of Spiny Lobster	V.51
V.4.14	Hawaii 1986-2002 Monthly Reported Commercial Landings of Saltwater Shrimp	V.52

BACKGROUND

This report is compiled by fisheries agencies participating in the Western Pacific Fishery Information Network (WPacFIN, formerly referenced as WPACFIN), an agency collaborative between agencies in Hawaii, Guam, the Commonwealth of the Mariana Islands (CNMI), and American Samoa. WPacFIN's goal is to improve the availability and dissemination of fisheries information. Participating groups include

American Samoa	Department of Marine and Wildlife Resources (DMWR)
	PIRO Fisheries Monitoring Field Office, American Samoa
Commonwealth of the Northern Mariana Islands (CNMI)	Division of Fish and Wildlife (DFW)
Guam	Division of Aquatic and Wildlife Resources (DAWR)
	Bureau of Statistics and Plans (BSAP; formerly Department of Commerce)
Hawaii	Hawaii Division of Aquatic Resources (HDAR)
	Pacific Islands Fisheries Science Center (PIFSC)
	Pacific Islands Regional Office (PIRO)
	Western Pacific Regional Fisheries Management Council

WPacFIN and these groups collect, computerize, edit, and process data from the islands. WPacFIN staff at the Pacific Islands Fisheries Science Center then use these data to create the summaries and graphs found in this document.

Data from DMWR, DAWR, and DFW are supplied on portable computer media in established WPacFIN database formats, whereas data for Hawaii are provided by HDAR through a dial-in telecommunications link. Once data from all agencies are put into the proper format on the central WPacFIN computer and appropriate edit, adjustment, and verification procedures are completed, summary reports and files are produced using software developed by WPacFIN staff specifically for this purpose. Graphs are produced using commercially available software.

PROGRESS

In 1981 when WPacFIN began assisting agencies in improving their data collecting and processing systems, only the State of Hawaii had computerized processing. By mid-1982, fisheries offices in American Samoa, Guam, and the CNMI were using WPacFIN-supplied computers to process data. Since that time, these agencies have made significant improvements to their data collecting systems and have established sound, automated data processing systems. Most agencies can now provide preliminary fishery statistics to WPacFIN within 45 days of the date of collection.

In particular, the HDAR has significantly improved its procedures for editing, updating, and processing Hawaii's data; it has reduced the lag time in data processing from about 2.5 years to less than 3 months for most data. The biggest problems still facing HDAR in improving its data systems are reducing delinquency of fishermen reporting and implementing a validation system to ensure that what gets reported by fishermen is accurate. A Dealer Reporting System is being implemented to augment the Fisherman Reporting System to help address this issue, and efforts are continuing to develop and implement other improvements to the Hawaii fisheries monitoring programs.

PRECAUTIONS

Data collecting and processing systems vary greatly among Pacific island fisheries agencies. Although much standardization has taken place and is continuing, there remain unique aspects of each island's systems based on local needs and capabilities.

When using summaries contained in this report, especially if making comparisons, one should keep in mind the nature of the systems used to produce the data. For example, Hawaii's commercial landings data are based on mandatory monthly reporting by licensed commercial fishermen; CNMI's and Guam's data are based on voluntary reporting of major fish buyers using government-provided "trip-ticket" invoices and are adjusted to represent 100% coverage; American Samoa's data are based on a complex integration of data from a boat-based creel survey and data expansion system for a portion of the fisheries, mandatory logbooks and a size frequency sampling program for the longline fishery, and a mandatory trip ticket invoice reporting system for local sales. Each system has advantages and disadvantages, and the user should be aware of them when comparing or interpreting data. In addition, WPacFIN staff and the island agencies are continually improving the data collecting and processing systems in each area. Because the improvements usually result in updates to the estimates of total and commercial landings, the data in this volume may not match exactly with data in previous volumes of this report series.

The user should also be aware that species assemblages vary among island groups, as do cultural preferences and principal fishing techniques and gear. Population

size is of particular importance when interpreting the relative value and importance of the fisheries. To help the user, explanations of the data collecting and processing systems are provided in each island's section of this report.

Please note that Guam and CNMI data are adjusted to 100% coverage and are referenced as "Estimated Commercial Landings."

CONTENTS

This document is divided into sections by island group. Each section contains reports on the monthly and annual landings by species or species groups for the commercial fleet.

DEFINITIONS

In addition to the description of the systems and the monthly and annual reports, each section contains graphs of some of the summary fishery statistics of particular interest or importance to participating WPacFIN agencies. To graphically present the data, several categories have been defined for each island's fisheries. Because of differences in reporting systems and capabilities among the islands, species contained within each category may vary, but all categories are documented in each island's section. Overlap exists among some of the categories used for different graphs.

Note: Many of the species included in this report have been re-categorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

Categories used in the graphs include:

1. Fisheries Categories—These are combinations of species of similar ecological types, specifically pelagic, bottomfish, reef fish, and "other." "Other" includes groups that generally traverse these categories, such as certain sharks and jacks, or are not typically included in these groups, such as mullet and milkfish.

2. Pelagic Management Unit Species (PMUS)—The Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to place tunas under U.S. jurisdiction for management. The Fishery Management Plan for Pacific Pelagic Species was amended to reflect this change. However, this report series will continue to treat tunas as a separate category, and the PMUS category in this document includes only billfishes, wahoo, mahimahi, and oceanic sharks.
3. Bottom Fish Management Unit Species (BMUS)—Defined as the species of initial importance in the Fishery Management Plan for bottomfish and seamount fisheries, including the major deepwater snapper, grouper, emperor, and certain jacks.
4. Tunas—All the tuna species excluding wahoo. Historically this had been predominantly skipjack and yellowfin tunas in all areas, but with the growth of longline fisheries in Hawaii and American Samoa, bigeye and albacore tunas have become much more important or even predominant in recent years.
5. Other Tunas—The definition varies among the islands depending on the importance of each tuna species in the total landings. For Guam and the CNMI it remains the same and includes all tunas as defined above except skipjack and yellowfin tunas. In Hawaii and Samoa it also excludes bigeye and albacore tuna, and it includes only tuna with relatively minor landings.
6. Billfish—Combination of all marlin, sailfish, spearfish, and swordfish species.

GRAPHICS

Four types of graphs are provided with each island's data. Type I graphs present summary charts of the major species and species groups for 2002. Type II graphs are seasonality plots for the major species or species groups, showing the average weight landed during each month for all years combined. Type III graphs are time series plots of annual summary statistics to help visualize the variability among years. Type IV graphs are plots of monthly landings of some of the major commercially important species and document monthly fluctuations in landings of these species over the entire time series.

To access the most up-to-date data and charts, please visit the WPacFIN Website (wpacfin.nmfs.hawaii.edu).

AMERICAN SAMOA 2002 FISHERY STATISTICS

Compiled by
American Samoa
Department of Marine and Wildlife Resources
and the
Western Pacific Fishery Information Network

June 2004

CONTENTS

	Page
Introduction	II.1
Special Note on Data Revisions	II.2
Data Collecting System	II.2
Data Processing System	II.5
Data Quality and Cross Validation: American Samoa Longline Example	II.7
Data Reporting System	II.8
Interpretation of Statistics	II.12

LIST OF AMERICAN SAMOA SUMMARY TABLES

Table	Title	Page
II.1.1	American Samoa Annual 2002 Estimated Commercial Landings	II.13
II.1.2	American Samoa January 2002 Estimated Commercial Landings	II.15
II.1.3	American Samoa February 2002 Estimated Commercial Landings	II.16
II.1.4	American Samoa March 2002 Estimated Commercial Landings	II.17
II.1.5	American Samoa April 2002 Estimated Commercial Landings	II.18
II.1.6	American Samoa May 2002 Estimated Commercial Landings	II.19
II.1.7	American Samoa June 2002 Estimated Commercial Landings	II.20
II.1.8	American Samoa July 2002 Estimated Commercial Landings	II.21
II.1.9	American Samoa August 2002 Estimated Commercial Landings	II.22
II.1.10	American Samoa September 2002 Estimated Commercial Landings	II.23
II.1.11	American Samoa October 2002 Estimated Commercial Landings	II.24
II.1.12	American Samoa November 2002 Estimated Commercial Landings	II.25
II.1.13	American Samoa December 2002 Estimated Commercial Landings	II.26

LIST OF AMERICAN SAMOA FIGURES

Figure	Title	Page
II.1.1	American Samoa 2002 Monthly Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Fisheries Categories:	II.27
II.1.2	American Samoa 2002 Monthly Estimated Commercial Landings of Tunas, Non-Tuna PMUS, and BMUS	II.27
II.1.3	American Samoa 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	II.28
II.1.4	American Samoa 2002 Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	II.28
II.1.5	American Samoa 2002 Monthly Estimated Commercial Landings of Skipjack, Bigeye, and Other Tunas	II.29
II.2.1	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Tunas, Non-Tuna PMUS, and BMUS	II.29
II.2.2	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Wahoo and Mahimahi	II.30
II.2.3	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Blue Marlin and Sailfish	II.30
II.2.4	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Albacore and Yellowfin Tunas	II.31
II.2.5	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of Skipjack, Bigeye, and Other Tunas	II.31
II.2.6	American Samoa 1982-2002 Average Monthly Estimated Commercial Landings of BMUS, Onaga, and Ehu	II.32
II.3.1	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Pelagic, Bottom, Reef, and Other Fisheries Categories	II.32
II.3.2	American Samoa 1982-2002 Annual Trends of Total Estimated Commercial Landings	II.33
II.3.3	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Tunas, Non-Tuna PMUS, and BMUS Landings	II.33
II.3.4	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Wahoo, Mahimahi, and Billfish	II.34
II.3.5	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Albacore and Yellowfin Tunas	II.34
II.3.6	American Samoa 1982-2002 Annual Trends of Estimated Commercial Landings for Skipjack, Bigeye, and Other Tunas	II.35

LIST OF AMERICAN SAMOA FIGURES (cont)

Figure	Title	Page
II.4.1	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Wahoo	II.35
II.4.2	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Mahimahi	II.36
II.4.3	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Blue Marlin	II.36
II.4.4	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Sailfish	II.37
II.4.5	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Albacore	II.37
II.4.6	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Skipjack Tuna	II.38
II.4.7	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Yellowfin Tuna	II.38
II.4.8	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Bigeye Tuna	II.39
II.4.9	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Onaga	II.39
II.4.10	American Samoa 1982-2002 Monthly Estimated Commercial Landings of Ehu	II.40

AMERICAN SAMOA 2002 FISHERY STATISTICS

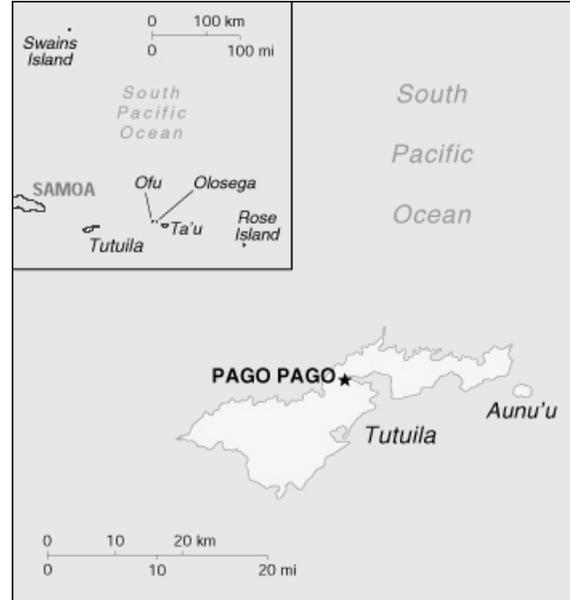
INTRODUCTION

Location: 14°S latitude, 170°W longitude

Islands: Tutuila, Aunu`u, the Manu`a Islands (Ofu, Olosega, Ta`u), Rose Atoll (uninhabited), and Swain's Island (sparsely populated)

Population: 70,260, 80% on Tutuila (*World Fact Book*, 2003)

Economy: tuna industry



American Samoa

Source: <<http://www.cia.gov/cia/publications/factbook/aq.html>>;
The World Factbook 2003

The American Samoa Department of Marine and Wildlife Resources (DMWR; formerly the Office of Marine Resources) is located near Pago Pago on Tutuila and has been collecting commercial fisheries data from the Tutuila fleet since the early 1970s. In 1983 it extended its coverage to the Manu`a Islands, and in 1985 DMWR modified its data collection programs to include recreational and subsistence fisheries data.

American Samoa's domestic fisheries have typically been small-boat, one-day fisheries using primarily 28-32 foot-long, outboard-engine-powered catamarans called *alias* (pronounced *ah-lee-ahs*). Traditionally, trolling and bottomfishing were the major methods of fishing and occasionally spearfishing, netting, and vertical longlining. Beginning in about mid-1995 some of the traditional *alias* began converting to horizontal longlining. During 1996 horizontal longlining became the largest fishery in American Samoa based on total landed weight of the catch, even though only about one-third of the fleet had converted to this method. Over the next few years the fleet grew rapidly with the addition of new *alias* up to about 38 feet long and, more significantly, with the addition of other larger mono-hull vessels that fished much longer trips. The primary target species is albacore tuna, but the fishery has also resulted in significant increases in landings of yellowfin tuna, wahoo, blue marlin, mahimahi, and some other incidentally caught species.

During 2002, the various fishery monitoring programs in American Samoa identified 78 active vessels: 76 home ported on Tutuila and 2 in the Manu`a islands. Many of these vessels participated in more than one fishery, and 65 of the Tutuila boats (including 24 vessels that were over 50 feet long) did some longlining. Of the 78 total boats, 23 participated in the troll and bottomfish fisheries, and 6 were used in other

II.2

forms of fishing activities. On average, the alia fleet on Tutuila consisted of 3-man crews, fished 9 hours, and caught about 324 pounds of fish; the Manu'a-based fleet typically had 3-man crews, fished about 5 hours and landed 76 pounds of fish. Essentially all of the longlining was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

SPECIAL NOTE ON DATA REVISIONS

There were significant changes in the fisheries in the mid-1990s with the development of the longline fishery and a nighttime, boat-based scuba spearfishing fishery. Because of the nature of these fisheries, biases began creeping into the effort-counting and interviewing processes of the DMWR surveys. By 1997 WPacFIN staff discovered the problems, and modifications to survey techniques were implemented by DMWR staff. It became clear by early 1998 that the algorithms used to expand the survey data and estimate for the total fishery also needed to be changed. A new data processing system that better handles the more complex nature of today's fisheries in American Samoa as detailed below has been completed and was used to reprocess the historical time series. This volume includes the results of this new improved algorithm, but additional data quality control procedures and algorithm enhancements are still being made, which may cause small changes in subsequent reports.

DATA COLLECTING SYSTEM

The data collecting systems used by DMWR to monitor the changing fisheries of American Samoa have evolved considerably over the past 20 years. One common factor of all systems has been that they rely heavily on personal contacts with the fishermen and on a significant amount of dockside monitoring and interviewing.

The major systems in place today include 1) boat-based access-point creel surveys on Tutuila and the Manu'a Islands (Offshore Creel Survey System), which are the mainstay of the monitoring program; 2) a mandatory purchase receipt "trip ticket" system for fish businesses on Tutuila (Commercial Purchase System); 3) a vessel history and tracking system for all American Samoa vessels (Vessel Classification System); 4) a Daily Effort Census System for detailed tracking of the developing longline fishery; 5) a mandatory federal Longline Logbook System; 6) a Cannery Landings System to document all landings at the two canneries by domestic and foreign vessels; and 7) a size-frequency sampling program at the canneries. Data from all these major systems are used to develop the best available data for the complex and ever-changing fisheries of American Samoa. More details of these data collection systems follow.

From 1982 to 1985, DMWR obtained catch statistics by interviewing commercial fishermen at the end of their trips and keeping records of as much commercial fishing activity as possible. This data collection method was accurate for trips where interviews

II.3

were conducted. Yet it was very labor intensive, did not cover all trips, and did not include the small but growing recreational and subsistence fisheries.

Also, beginning in the early 1980s, a vessel classification system was established to collect information on all vessels participating in domestic fisheries. This system provided the following information on American Samoa vessels:

- Boat Name
- Registration Number
- Propulsion
- Length
- Beam
- Number of Engines
- Type of Use
- Trailered
- Number of Crew
- Depth
- Engine Type
- Fuel Type
- Material
- Horsepower
- Port
- Methods of fishing
- Federal Permit

In October 1985 a new creel survey sampling system was implemented on Tutuila to provide better coverage and statistics on all boat-based fisheries. Soon afterwards similar monitoring programs were established in the Manu`a Islands where the fishing fleets are centrally located and small enough for statistics to be collected for nearly every trip. The surveyors in the Manu`a islands send their monitoring forms to DMWR in Tutuila for processing. The Manu`a statistics are entered and compiled on a monthly basis and are adjusted by an estimated percent coverage factor that is usually 100%.

The details of the Tutuila boat-based fishery sampling program have changed over the years to accommodate changes in the fisheries, but it is still a systematic, random sampling program that stratifies sampling by type of day (either weekday or weekend/holiday) and by fishing method. For logistical and cultural reasons, Sundays are no longer sampled as effort is extremely low and not similar to other weekend/holiday-type days.

DMWR staff normally sample 2 weekdays and 1 weekend/holiday per week. During survey days, counts of total participation are collected, and as many returning vessels as possible are interviewed for catch, effort, and biological samples. Tutuila is divided into six sample areas, five of which are sampled. It is assumed that the non-sampled area is similar to the sampled areas in fishing activity and success rate. Furthermore, it is assumed that the fishermen interviewed are representative of the entire fishing population and that they give accurate information.

Unless contrary information is available from dockside questioning of knowledgeable persons, a boat is assumed to be "out fishing" if its trailer is at a boat ramp or the boat is missing from its normal berthing area during the 18-hour survey day.

II.4

The following participation information is recorded for all boats determined to be out fishing. The participation data are expanded to estimate the total number of fishing trips in Tutuila.

- Sample Date
- Boat Name
- 3 Observation Times
- Type of Day
- Fishing Method
- Sample Area

The remaining data items listed below are collected on each boat for which an interview is successfully completed.

- Interview Time *
- Area Fished
- Home Island
- Total Hours Fished (trip length) *
- Number of Fishermen
- Number of Gear Used
- Total Trip Weight in Pounds *
- Species Caught *
- Number of Pieces for Each Species
- Disposition of Species*
- Weight in Pounds for Each Species *
- Condition of Species If Not Whole
- Length of Fish (Converted to Weight)
- Price per Pound for Each Species

It is not always possible to obtain information on all the items listed. However, the ones marked with an asterisk (*) are considered essential for data expansion purposes. Also, identification and weight of each species are often not obtainable; in this case a code for species groupings (e.g., miscellaneous bottomfish) is used. The interview data is later expanded to estimate the total catch per fishing trips and other CPUE measures in Tutuila. The catch-per-trip estimate is multiplied by the number of trips' estimate for each strata to get an estimate of the total catch for Tutuila.

For several decades the two canneries have also provided monthly summary statistics about their purchases of fish from all vessels, foreign and domestic. Then in September 1990, a Commercial Purchase System (receipt book) was instituted in which all businesses in Samoa that buy fish directly from fishermen were required by local law to submit a copy of their purchase receipts to DMWR. Receipt books are issued by DMWR to all fish markets, stores, hotels, and restaurants that resell fish, either whole or prepared. The following information is collected via these receipts.

- Invoice Date
- Invoice Number
- Buyer's Name
- Boat Name, Owner
- Area Fished
- Fishing Method
- Species Bought
- Number of Pieces for Each Species
- Weight in Pounds for Each Species *
- Price per Pound for Each Species

II.5

In January 1996, in response to the developing longline fishery, a federal longline logbook system was implemented by NMFS. It required all longline fishermen to obtain a federal permit and to submit logs containing detailed data on each of their sets and the resulting catch. From 1996 to 1999, the logbooks submitted by the local longliners were edited by the NMFS fisheries monitoring agent in Samoa for any missing data and then sent to the NMFS Honolulu Lab for further editing and data processing. To improve the monitoring of the fast-growing longline fishery, in July 1999 DMWR implemented a Daily Effort Concensus (DEC) for all federally permitted longline vessels. Under this program, DMWR staff make two visits a day, 6 days a week, to ports where longline vessels move. The staff document whether each vessel on the list is “in port” or out fishing. The DEC data are used to track the activity of each vessel and to help ensure all fishing logsheets are submitted by the fishermen. To further improve the quality and timeliness of the data, beginning in January 2000 logbook data collecting, editing, and processing were done by DMWR in Samoa and then downloaded to NMFS periodically. The following information is recorded for each set these longline fishermen make:

- Set Date
- Vessel
- Date of Departure
- Port of Departure
- Date of Arrival
- Port of Arrival
- Observer on Board
- Target Species
- Bait Used
- Mainline Length
- No. of Hooks
- No. of Hooks/Float
- No. of Lightsticks Used
- Bird Catch Mitigation Measures
- Wind Detection
- Wave Height
- Sea Surface Temperature
- Wind Speed
- Begin Set Time
- Begin Set Latitude and Longitude
- End Set Time
- End Set Latitude and Longitude
- Haul Date
- Begin Haul Date
- Begin Haul Latitude and Longitude
- End Haul Time
- End Haul Latitude and Longitude
- No. of Pelagic Species Kept
- No. of Pelagic Species Released
- No. of Sharks Finned
- No. of Sharks Kept
- No. of Sharks Released
- No. of Protected Species Released Alive
- No. of Protected Species Released Injured
- No. of Protected Species Released Dead

DATA PROCESSING SYSTEM

As the data collecting systems used by DMWR to monitor the fisheries in American Samoa have changed over the years, so have the data processing systems. Numerous versions of database and utility software and microcomputer systems have been used to meet the growing demand for processing the collected data. Generally

II.6

speaking, these changes, with their significant emphasis on improving data quality and their cross-validation among systems, have made the data processing systems more robust, complex, and complete.

Several important principles have remained constant over time: keep data processing close to the source of data collecting; provide all of the needed software tools to ensure the quality of data; make the systems user friendly and functional for the local staff; and maintain as many standards as possible throughout the time series of data collected.

Typically, when upgrades (such as changes in expansion and reporting algorithms for the creel survey data and commercial landings data) have been made to data processing systems, the entire time series of data would be reprocessed using the same algorithms, so that trends in the fisheries would remain as intact as possible. The annual and monthly estimated commercial landings data and the corresponding time series figures included in this report were produced with the versions of data processing systems in use in 2004. To help the reader understand the origin of the data included in this report, a general description of these processes follows. It does not include the details on many minor changes that have occurred throughout the evolutionary history of these systems.

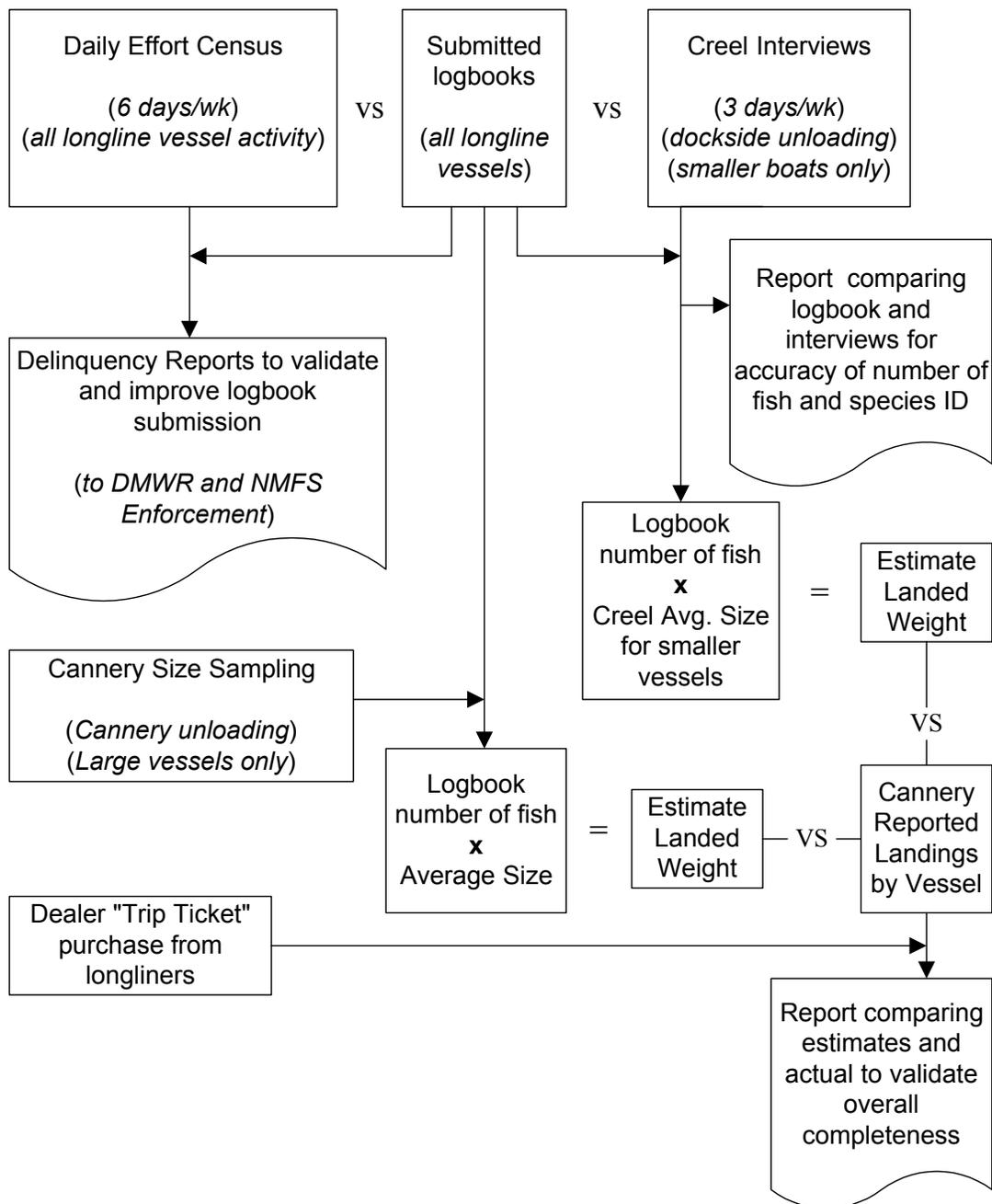
The data from 1982 to 1985 have been imported directly from the original Commercial Catch Monitoring System used before the implementation of the offshore creel survey. Since 1986, the boat-based creel survey data expansion system has been the central system for estimating total commercial landings in American Samoa.

In short, the survey data expansion process involves multiplying the average daily participation by the average catch-per-trip for each stratum. For the years 1986-90, commercial sales portions of the expanded creel survey data from Tutuila and the Manu`a Islands were combined to produce estimated total commercial landings. Since 1990, with the implementation of the mandatory fish dealer receipt book system on Tutuila, further adjustments have been made to these combined creel data by using receipt book data. These adjustments have significantly improved overall totals as they helped adjust for sales not monitored through the boat-based survey (e.g. shoreline and strictly nighttime commercial fishing). Species totals modified with these types of adjustments are flagged in reports with an asterisk. Finally, in the late 1990s when larger longline vessels began landing their catches directly at the canneries, and thus out of the monitoring capabilities of the standard creel surveys, the longline logbook system and cannery size frequency sampling data filled the gap for this portion of the fishery to create a more complete picture of the estimated total commercial landings for the Territory.

One of the most significant recent improvements made in the data processing systems for DMWR has been in the area of cross-system data validation and quality control. By collecting similar data from several sources using different monitoring and reporting tools the quality of reported data can be cross-referenced between systems to

provide insight into the validity and completeness of each data set. The following schematic shows some cross-system data validation relationships and features that are utilized in the most current version of the integrated DMWR fisheries monitoring programs:

Data Quality and Cross Validation American Samoa Longline Example



DATA REPORTING SYSTEM

After all editing, quality control, and data interpretation activities are completed, monthly and annual commercial landings data tables by species are generated. Each of the commercial landings data tables contains the common name, weight in pounds, value in dollars, and the average price per pound of each species or species group and whether or not the data were modified by Commercial Purchase System data (denoted by asterisks). The monthly data tables are based on monthly expansions of the Tutuila Offshore Creel Survey Data with enhancements by monthly Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Annual data tables are based on combined annual expansions of the creel data for the entire calendar year with similar annual enhancements from Longline Logbook, Commercial Purchase System and Manu`a data as explained previously. Since the monthly and annual data tables are based on separate monthly and annual expansion of the creel data, the annual data tables are not the exact sum of the 12 monthly data tables but fall within the standard error. These data tables are listed as Tables II.1.1 to II.1.13 in this report.

The charts that make up the rest of the report are for groups of species as well as for some of the dominant individual species. Please note that some of the charts in this volume are new or modified from earlier volumes. For example, more emphasis has been put on bigeye tuna and albacore tuna because of their new substantial levels of catch. The species in the species groups used in the charts of this report are defined below.

Note: Many of the species included in this report have been re-categorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Other Sharks	Black marlin
Blacktip reef shark	Striped Marlin
Blue shark	Sailfish
Mako Shark	Spearfish
Nurse shark	Swordfish
Thresher Shark	Wahoo
White-Tip Shark	Pomfret
Mahimahi	Moonfish
Blue marlin	

II.9

II. Bottomfish Management Unit Species (BMUS)

Black Jack	Hawaiian opakapaka
Amberjack	Gindai (flower snap)
Giant trevally	Yellowtail snapper
Yelloweye Snapper.	Lehi (silverjaw)
Blacktip grouper	Onaga (longtail snapper)
Lunartail grouper	Ehu (squirrelfish snap.)
Blue lined snapper	Ambon emperor
Gray jobfish	Redgill emperor

III. Billfish

Swordfish	Striped Marlin
Blue marlin	Sailfish
Black marlin	Spearfish

IV. Tunas

Tunas	Bluefin Tuna
Skipjack Tuna	Yellowfin Tuna
Dogtooth tuna	BigeyeTuna
Albacore	Kawakawa

V. Other Tuna

Tunas	Bluefin Tuna
Dogtooth tuna	Kawakawa

VI. Fisheries Categories

A. Pelagics

Albacore	Other Sharks
Barracudas	Other birds
BigeyeTuna	Pomfret
Black marlin	Rainbow runner
Blacktip reef shark	Sailfish
Blue marlin	Sharks
Blue shark	Silky Shark
Bluefin Tuna	Skipjack Tuna
Dogtooth tuna	Small barracuda
Hammerhead Shark	Spearfish
Kawakawa	Striped Marlin
Large barracuda	Swordfish
Mackerel	Thresher Shark
Mahimahi	Tiger Shark
Mako Shark	Tunas
Moonfish	Wahoo
Nurse shark	White-Tip Shark
Other Pelagic Fish	Yellowfin Tuna

B. Bottomfish

Amberjack	Jacks (misc)
Ambon emperor	Kusakar's snapper
Bigeye emperor	Lehi (silverjaw)
Bigeye trevally	Longnose emperor
Black Jack	Lunartail grouper
Black snapper	Multidens snapper
Blacktail snapper	Oilfish
Blacktip grouper	Onaga (longtail snapper)
Blood snapper	Onespot snapper
Blue lined gindai	Orangespot emperor
Blue lined snapper	Peacock grouper
Bluefin trevally	Pristipomoides/Etelis
Blueline bream	Redgill emperor
Bottom Handline Snappers	Rufous snapper
Bottomfish (Assorted)	Smalltooth grouper
Brown jobfish	Snake mackerel
Ehu (squirrelfish snap.)	Spotted grouper
Emperors (misc)	Stone's snapper
Flagtail grouper	Striped grouper
Giant grouper	Tomato grouper
Giant trevally	Trevally (C.caeruleop.)
Gindai (flower snap)	Twinspot/red snapper
Goldenline bream	Whitemouth trevally
Goldspot trevally	Yellow opakapaka
Gray jobfish	Yelloweye Snapper.
Groupers (misc)	Yellowspot grouper
Hawaiian opakapaka	Yellowtail snapper
Humpback snapper	

C. Reef Fish

Bigeye scad	Moray eels
Catfish	Needlefish
Conger eels	Octopus
Crabs	Rays
Eagle ray	Salmon
Eels	Sea shells
Flyingfish	Sea urchins
Giant clam	Sharks
Halfbeaks	Shrimp
Invertebrates	Slipper lobster
Kona crab	Spiny lobster
Leatherback	Spotted eels
Limu, algae	Squid
Mackerel scad: opelu	Sunfish
Mangrove crab	Threadfin
Milkfish	Tilapia
Miscellaneous	Turban snail

D. Other

Bigeye squirrelfish	Porcupinefish
Bigeyes	Rabbitfish
Bigscale soldierfish	Red snapper, mu
Brown surgeonfish	Reef fish (Assorted)
Brwn wrasse:pataotao	Rudderfish
Butterflyfish	Saber squirrelfish
Cardinalfish	Sargent major
Convict tang	Squirrelfish
Flounders	Striped bristletooth
Goatfish	Surgeonfishes/tangs
Hawkfish	Sweepers
Inshore groupers	Sweetlips
Inshore snappers	Terapon perch
Lined surgeon	Tilefish
Mountain bass	Triggerfish
Mulletts	Unicornfishes (misc)
Naso tang	Whitespotted surgeonfish
Orangespine unicornfish	Wrasse
Parrotfishes	Yellowfin surgeonfish
Pink goatfish	

INTERPRETATION OF STATISTICS

The user is reminded to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are not based on a census of all the fishing activities, but on samples of those activities and on integration of data from four separate data systems. One of the major factors in expanding the creel survey data into monthly and annual estimates is the use of proportionality constants to adjust for percent coverage of the surveys. The flexibility of the survey design allows for refinement of these constants as additional information is gained on the fishing activities. If the constants are improved upon, the basic survey data can be re-expanded to create better overall estimates. However, the variability and species composition would not be expected to change since these statistics are based on the actual survey information collected from the fishermen. The estimates of total landings are considered to be conservative because the catch from the subsistence inshore fisheries are currently not included in this document.

Table II.1.1

American Samoa Annual 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	42	\$63	\$1.50
Jacks (misc)	246	\$197	\$0.80
Black jack	590	\$1,367	\$2.32
Bigeye trevally	678	\$1,496	\$2.21
Whitemouth trevally	24	\$48	\$2.00
Barracudas	2,320	\$3,561	\$1.54
Other Sharks	1,121	\$560	\$0.50
Bottomfish (Assorted)	537	\$1,043	\$1.94
Groupers (misc)	1,245	\$2,445	\$1.96
Peacock grouper	33	\$65	\$2.00
Flagtail grouper	52	\$124	\$2.38
Tomato grouper	303	\$676	\$2.23
Blacktip grouper	98	\$270	\$2.75
Striped grouper	8	\$22	\$2.75
Lunartail grouper	710	\$1,384	\$1.95
Blue lined snapper	6,504	\$12,793	\$1.97
Rufous snapper	50	\$112	\$2.24
Onespot snapper	49	\$69	\$1.39
Twinspot/red snapper	173	\$303	\$1.75
Humpback snapper	1,948	\$3,883	\$1.99
Blood snapper	4	\$8	\$2.00
Gray jobfish	2,708	\$4,244	\$1.57
Yellow opakapaka	1,553	\$5,705	\$3.67
Hawaiian opakapaka	66	\$169	\$2.57
Yelloweye opakapaka(P.fl.	6	\$17	\$2.75
Blue lined gindai	34	\$68	\$2.00
Gindai (flower snap)	123	\$320	\$2.60
Yellowtail snapper	9	\$18	\$2.00
Lehi (silverjaw)	4,778	\$11,387	\$2.38
Onaga (longtail snapper)	1,404	\$3,548	\$2.53
Ehu (squirrelfish snap.)	1,532	\$3,934	\$2.57
Stone's snapper	68	\$187	\$2.75
Emperors (misc)	11,258	\$22,160	\$1.97
Longnose emperor	441	\$882	\$2.00
Redgill emperor	125	\$250	\$2.00
Pomfret	350	\$694	\$1.98
Rudderfish	63	\$112	\$1.78
Rabbitfish	30	\$59	\$2.00
Surgeonfishes/tangs	4,625	\$9,156	\$1.98 *
Unicornfishes (misc)	1,990	\$3,671	\$1.85 *
Squirrelfish	1,345	\$2,611	\$1.94
Saber squirrelfish	24	\$66	\$2.75
Bigeye squirrelfish	35	\$89	\$2.54
Parrotfishes	5,710	\$10,956	\$1.92 *
Goatfish	496	\$991	\$2.00
Inshore groupers	762	\$1,417	\$1.86 *
Triggerfish	39	\$74	\$1.89
Mahimahi	35,447	\$63,212	\$1.78
Swordfish	3,701	\$8,228	\$2.22 *
Blue marlin	42,435	\$43,175	\$1.02
Black marlin	1,265	\$1,265	\$1.00
Sailfish	1,739	\$1,881	\$1.08
Spearfish	607	\$910	\$1.50

**Table II.1.1 (Cont.)
American Samoa Annual 2002 Estimated Commercial Landings**

Species	Pounds	Value	\$/Lb
Rainbow runner	1,173	\$2,040	\$1.74
Wahoo	276,349	\$277,119	\$1.00
Skipjack Tuna	428,257	\$287,496	\$0.67
Bluefin Tuna	0	\$0	\$0.00
Dogtooth tuna	274	\$511	\$1.86
Albacore	13,109,824	\$11,572,879	\$0.88
Yellowfin Tuna	1,043,918	\$989,447	\$0.95
Bigeye Tuna	396,712	\$445,422	\$1.12
Kawakawa	56	\$148	\$2.67
Moonfish	0	\$0	\$0.00
Sunfish	0	\$0	\$0.00
Spiny lobster	762	\$2,578	\$3.38 *
Octopus	69	\$208	\$3.00
TOTAL	15,398,893	\$13,809,792	\$0.90

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.2
American Samoa January 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	328	\$680	\$2.07
Barracudas	138	\$248	\$1.80
Bottomfish (Assorted)	17	\$47	\$2.75
Groupers (misc)	66	\$133	\$2.00
Peacock grouper	14	\$28	\$2.00
Tomato grouper	220	\$451	\$2.05
Blacktip grouper	22	\$61	\$2.75
Lunartail grouper	78	\$168	\$2.15
Blue lined snapper	242	\$484	\$2.00
Onespot snapper	1	\$1	\$1.82
Humpback snapper	109	\$231	\$2.12
Gray jobfish	123	\$197	\$1.60
Yellow opakapaka	542	\$2,022	\$3.73
Hawaiian opakapaka	6	\$17	\$2.75
Yelloweye opakapaka(P.fl.)	6	\$17	\$2.75
Gindai (flower snap)	13	\$36	\$2.75
Lehi (silverjaw)	464	\$1,427	\$3.08
Onaga (longtail snapper)	509	\$1,281	\$2.52
Ehu (squirrelfish snap.)	541	\$1,371	\$2.54
Emperors (misc)	1,639	\$3,277	\$2.00
Pomfret	2	\$4	\$1.75
Rudderfish	1	\$3	\$1.80
Rabbitfish	14	\$28	\$2.00
Surgeonfishes/tangs	1,455	\$2,701	\$1.86
Unicornfishes (misc)	280	\$280	\$1.00
Squirrelfish	208	\$407	\$1.96
Parrotfishes	445	\$875	\$1.97 *
Goatfish	235	\$470	\$2.00
Inshore groupers	205	\$399	\$1.95
Triggerfish	2	\$3	\$1.89
Mahimahi	913	\$1,416	\$1.55
Swordfish	383	\$1,013	\$2.64 *
Blue marlin	19,926	\$19,926	\$1.00
Sailfish	697	\$746	\$1.07
Spearfish	28	\$41	\$1.50
Rainbow runner	17	\$31	\$1.80
Wahoo	20,300	\$20,557	\$1.01
Skipjack Tuna	7,961	\$5,424	\$0.68
Dogtooth tuna	3	\$3	\$1.00
Albacore	857,352	\$704,389	\$0.82
Yellowfin Tuna	28,628	\$25,837	\$0.90
Bigeye Tuna	10,289	\$11,653	\$1.13
Kawakawa	3	\$8	\$2.75
Spiny lobster	156	\$555	\$3.56 *
Octopus	33	\$99	\$3.00
TOTAL	954,613	\$809,045	\$0.85

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.3
American Samoa February 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	227	\$491	\$2.16
Bigeye trevally	12	\$33	\$2.75
Barracudas	35	\$35	\$1.00
Peacock grouper	2	\$5	\$2.00
Flagtail grouper	10	\$28	\$2.75
Tomato grouper	18	\$50	\$2.75
Blacktip grouper	23	\$63	\$2.75
Striped grouper	8	\$22	\$2.75
Lunartail grouper	125	\$266	\$2.13
Blue lined snapper	357	\$731	\$2.05
Rufous snapper	6	\$17	\$2.75
Humpback snapper	149	\$320	\$2.15
Gray jobfish	124	\$219	\$1.77
Yellow opakapaka	959	\$3,573	\$3.72
Hawaiian opakapaka	9	\$25	\$2.75
Gindai (flower snap)	26	\$72	\$2.75
Lehi (silverjaw)	516	\$1,848	\$3.59
Onaga (longtail snapper)	931	\$2,345	\$2.52
Ehu (squirrelfish snap.)	1,008	\$2,562	\$2.54
Stone's snapper	15	\$41	\$2.75
Emperors (misc)	1,878	\$3,763	\$2.00
Pomfret	2	\$4	\$1.75
Rabbitfish	2	\$5	\$2.00
Surgeonfishes/tangs	230	\$428	\$1.86
Unicornfishes (misc)	68	\$97	\$1.42 *
Squirrelfish	184	\$382	\$2.08
Parrotfishes	287	\$557	\$1.95 *
Goatfish	40	\$79	\$2.00
Inshore groupers	148	\$295	\$1.99
Mahimahi	1,250	\$1,936	\$1.55
Swordfish	227	\$681	\$3.00 *
Blue marlin	7,602	\$8,264	\$1.09
Spearfish	9	\$14	\$1.50
Rainbow runner	346	\$554	\$1.60
Wahoo	18,788	\$18,586	\$0.99
Skipjack Tuna	2,957	\$1,963	\$0.66
Dogtooth tuna	16	\$44	\$2.75
Albacore	451,575	\$396,604	\$0.88
Yellowfin Tuna	53,748	\$55,299	\$1.03
BigeyeTuna	17,946	\$22,428	\$1.25
Spiny lobster	133	\$512	\$3.85 *
Octopus	6	\$17	\$3.00
TOTAL	562,001	\$525,254	\$0.93

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.4

American Samoa March 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	11	\$17	\$1.50
Jacks (misc)	10	\$20	\$2.00
Black jack	21	\$42	\$2.00
Barracudas	657	\$1,195	\$1.82
Groupers (misc)	259	\$518	\$2.00
Peacock grouper	5	\$10	\$2.00
Flagtail grouper	10	\$20	\$2.00
Tomato grouper	18	\$36	\$2.00
Blacktip grouper	2	\$6	\$2.75
Lunartail grouper	111	\$222	\$1.99
Blue lined snapper	810	\$1,620	\$2.00
Rufous snapper	18	\$36	\$2.00
Onespot snapper	17	\$31	\$1.82
Humpback snapper	554	\$1,107	\$2.00
Gray jobfish	1,259	\$1,899	\$1.51
Yellow opakapaka	263	\$966	\$3.68
Hawaiian opakapaka	7	\$14	\$2.00
Gindai (flower snap)	12	\$24	\$2.00
Lehi (silverjaw)	170	\$322	\$1.89
Onaga (longtail snapper)	30	\$60	\$2.00
Ehu (squirrelfish snap.)	25	\$50	\$2.00
Emperors (misc)	4,067	\$8,134	\$2.00
Pomfret	2	\$3	\$1.75
Rudderfish	30	\$53	\$1.80
Rabbitfish	5	\$10	\$2.00
Surgeonfishes/tangs	601	\$1,119	\$1.86
Unicornfishes (misc)	161	\$262	\$1.63 *
Squirrelfish	135	\$266	\$1.96
Parrotfishes	485	\$950	\$1.96 *
Goatfish	85	\$170	\$2.00
Inshore groupers	205	\$400	\$1.95
Triggerfish	37	\$70	\$1.89
Mahimahi	1,564	\$2,398	\$1.53
Swordfish	516	\$927	\$1.80 *
Blue marlin	7,885	\$7,885	\$1.00
Sailfish	150	\$225	\$1.50 *
Spearfish	9	\$14	\$1.50
Rainbow runner	368	\$658	\$1.79
Wahoo	17,727	\$17,844	\$1.01
Skipjack Tuna	9,165	\$6,850	\$0.75
Dogtooth tuna	91	\$115	\$1.26
Albacore	565,527	\$561,136	\$0.99
Yellowfin Tuna	41,919	\$36,947	\$0.88
Bigeye Tuna	21,643	\$24,048	\$1.11
Kawakawa	13	\$29	\$2.31
Spiny lobster	92	\$311	\$3.37
Octopus	12	\$36	\$3.00
TOTAL	676,761	\$679,074	\$1.00

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.5
American Samoa April 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Miscellaneous	3	\$5	\$1.50
Jacks (misc)	130	\$97	\$0.75
Black jack	7	\$19	\$2.69
Barracudas	25	\$50	\$2.00
Bottomfish (Assorted)	118	\$229	\$1.94 *
Groupers (misc)	73	\$147	\$2.00
Tomato grouper	3	\$8	\$2.59
Blacktip grouper	2	\$6	\$2.75
Lunartail grouper	12	\$23	\$2.01
Blue lined snapper	807	\$1,615	\$2.00
Rufous snapper	3	\$7	\$2.28
Twinspot/red snapper	95	\$166	\$1.75
Humpback snapper	67	\$134	\$2.00 *
Gray jobfish	223	\$343	\$1.54
Hawaiian opakapaka	3	\$8	\$2.59
Gindai (flower snap)	2	\$5	\$2.62
Lehi (silverjaw)	608	\$1,147	\$1.89
Onaga (longtail snapper)	27	\$68	\$2.50 *
Stone's snapper	9	\$25	\$2.75
Emperors (misc)	682	\$1,365	\$2.00
Pomfret	3	\$4	\$1.75
Rudderfish	17	\$30	\$1.75
Surgeonfishes/tangs	164	\$329	\$2.00
Unicornfishes (misc)	69	\$126	\$1.82
Squirrelfish	73	\$136	\$1.86
Parrotfishes	309	\$604	\$1.96 *
Inshore groupers	64	\$125	\$1.95 *
Mahimahi	2,192	\$3,938	\$1.80
Swordfish	640	\$1,284	\$2.01 *
Blue marlin	433	\$541	\$1.25
Sailfish	179	\$239	\$1.33
Spearfish	74	\$110	\$1.50
Rainbow runner	4	\$7	\$1.53
Wahoo	13,181	\$12,634	\$0.96
Skipjack Tuna	8,483	\$6,403	\$0.75
Dogtooth tuna	67	\$67	\$1.00 *
Albacore	968,213	\$874,543	\$0.90
Yellowfin Tuna	50,844	\$47,767	\$0.94
BigeyeTuna	36,425	\$41,660	\$1.14
Kawakawa	8	\$21	\$2.64
Spiny lobster	106	\$354	\$3.34
TOTAL	1,084,446	\$996,386	\$0.92

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.6
American Samoa May 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Miscellaneous	11	\$17	\$1.50
Black jack	19	\$51	\$2.69
Bigeye trevally	9	\$25	\$2.75
Barracudas	568	\$845	\$1.49
Other Sharks	75	\$38	\$0.50
Bottomfish (Assorted)	132	\$245	\$1.86 *
Groupers (misc)	371	\$742	\$2.00
Flagtail grouper	12	\$29	\$2.38
Tomato grouper	11	\$28	\$2.59
Lunartail grouper	12	\$33	\$2.75
Blue lined snapper	1,443	\$2,897	\$2.01
Humpback snapper	673	\$1,352	\$2.01
Blood snapper	4	\$8	\$2.00
Gray jobfish	20	\$52	\$2.58
Yellow opakapaka	5	\$13	\$2.69
Gindai (flower snap)	11	\$29	\$2.62
Lehi (silverjaw)	163	\$392	\$2.41
Onaga (longtail snapper)	25	\$64	\$2.58
Ehu (squirrelfish snap.)	28	\$62	\$2.20 *
Stone's snapper	17	\$47	\$2.75
Emperors (misc)	221	\$442	\$2.00
Redgill emperor	69	\$138	\$2.00
Pomfret	4	\$6	\$1.75
Surgeonfishes/tangs	47	\$93	\$2.00
Squirrelfish	285	\$567	\$1.99
Parrotfishes	145	\$284	\$1.96
Inshore groupers	57	\$114	\$2.01
Mahimahi	1,102	\$2,079	\$1.89
Swordfish	150	\$440	\$2.93 *
Blue marlin	416	\$462	\$1.11
Spearfish	120	\$179	\$1.50
Wahoo	17,812	\$17,148	\$0.96
Skipjack Tuna	18,048	\$12,420	\$0.69
Dogtooth tuna	35	\$84	\$2.40
Albacore	1,959,972	\$1,777,426	\$0.91
Yellowfin Tuna	110,871	\$113,881	\$1.03
BigeyeTuna	31,469	\$35,566	\$1.13
Spiny lobster	47	\$140	\$3.00
TOTAL	2,144,476	\$1,968,436	\$0.92

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.7
American Samoa June 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	24	\$65	\$2.69
Barracudas	128	\$198	\$1.56
Bottomfish (Assorted)	29	\$54	\$1.88 *
Groupers (misc)	99	\$198	\$2.00
Peacock grouper	3	\$7	\$2.00
Tomato grouper	12	\$31	\$2.59
Blacktip grouper	5	\$14	\$2.75
Lunartail grouper	40	\$86	\$2.15
Blue lined snapper	673	\$1,320	\$1.96
Humpback snapper	181	\$363	\$2.01
Gray jobfish	17	\$44	\$2.58
Yellow opakapaka	15	\$40	\$2.69
Hawaiian opakapaka	12	\$31	\$2.59
Gindai (flower snap)	21	\$32	\$1.50 *
Yellowtail snapper	6	\$12	\$2.00
Lehi (silverjaw)	51	\$128	\$2.53
Onaga (longtail snapper)	60	\$155	\$2.58
Ehu (squirrelfish snap.)	59	\$156	\$2.65
Stone's snapper	12	\$33	\$2.75
Emperors (misc)	308	\$593	\$1.92
Redgill emperor	14	\$27	\$2.00
Pomfret	110	\$113	\$1.03
Rabbitfish	3	\$7	\$2.00
Surgeonfishes/tangs	419	\$792	\$1.89
Unicornfishes (misc)	166	\$316	\$1.90 *
Squirrelfish	164	\$314	\$1.91
Parrotfishes	431	\$801	\$1.86 *
Goatfish	57	\$114	\$2.00
Inshore groupers	98	\$183	\$1.87 *
Mahimahi	3,104	\$5,169	\$1.67
Swordfish	360	\$1,010	\$2.81
Blue marlin	83	\$86	\$1.03
Spearfish	74	\$110	\$1.50
Rainbow runner	14	\$24	\$1.80
Wahoo	20,226	\$19,733	\$0.98
Skipjack Tuna	9,437	\$5,867	\$0.62
Dogtooth tuna	25	\$60	\$2.40
Albacore	1,802,796	\$1,551,298	\$0.86
Yellowfin Tuna	102,146	\$93,954	\$0.92
BigeyeTuna	27,360	\$30,416	\$1.11
Spiny lobster	89	\$313	\$3.52 *
Octopus	8	\$24	\$3.00
TOTAL	1,968,937	\$1,714,291	\$0.87

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.8
American Samoa July 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	21	\$57	\$2.69
Bigeye trevally	370	\$811	\$2.19
Barracudas	254	\$289	\$1.14
Groupers (misc)	186	\$349	\$1.87
Tomato grouper	9	\$23	\$2.59
Blacktip grouper	10	\$28	\$2.75
Lunartail grouper	124	\$215	\$1.73
Blue lined snapper	459	\$852	\$1.86
Onespot snapper	18	\$20	\$1.15
Humpback snapper	205	\$371	\$1.81
Gray jobfish	285	\$442	\$1.55
Yellow opakapaka	10	\$27	\$2.69
Hawaiian opakapaka	8	\$21	\$2.59
Blue lined gindai	5	\$10	\$2.00
Gindai (flower snap)	51	\$77	\$1.50 *
Yellowtail snapper	3	\$6	\$2.00
Lehi (silverjaw)	1,405	\$3,330	\$2.37
Onaga (longtail snapper)	73	\$188	\$2.58
Ehu (squirrelfish snap.)	69	\$183	\$2.65
Emperors (misc)	1,107	\$2,067	\$1.87
Longnose emperor	249	\$497	\$2.00
Pomfret	238	\$594	\$2.49
Surgeonfishes/tangs	362	\$724	\$2.00 *
Unicornfishes (misc)	86	\$168	\$1.95 *
Squirrelfish	137	\$272	\$1.99 *
Parrotfishes	254	\$483	\$1.90 *
Inshore groupers	44	\$85	\$1.92 *
Mahimahi	7,305	\$13,007	\$1.78
Swordfish	80	\$200	\$2.50 *
Blue marlin	551	\$551	\$1.00 *
Sailfish	691	\$691	\$1.00
Spearfish	74	\$110	\$1.50
Rainbow runner	286	\$511	\$1.79
Wahoo	31,278	\$30,889	\$0.99
Skipjack Tuna	29,626	\$22,066	\$0.74
Dogtooth tuna	8	\$19	\$2.40
Albacore	1,486,724	\$1,306,164	\$0.88
Yellowfin Tuna	113,893	\$119,231	\$1.05
BigeyeTuna	41,495	\$45,933	\$1.11
Kawakawa	7	\$19	\$2.75
Spiny lobster	134	\$449	\$3.35 *
TOTAL	1,718,194	\$1,552,029	\$0.90

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.9

American Samoa August 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Miscellaneous	17	\$26	\$1.50
Black jack	56	\$151	\$2.69
Barracudas	50	\$50	\$1.00
Tomato grouper	19	\$49	\$2.59
Blacktip grouper	19	\$52	\$2.75
Lunartail grouper	24	\$66	\$2.75
Blue lined snapper	24	\$36	\$1.50 *
Rufous snapper	12	\$27	\$2.28
Humpback snapper	14	\$38	\$2.72
Gray jobfish	37	\$95	\$2.58
Yellow opakapaka	13	\$35	\$2.69
Hawaiian opakapaka	6	\$16	\$2.59
Blue lined gindai	8	\$16	\$2.00
Gindai (flower snap)	21	\$55	\$2.62
Lehi (silverjaw)	34	\$94	\$2.75
Onaga (longtail snapper)	120	\$309	\$2.58
Ehu (squirrelfish snap.)	69	\$183	\$2.65
Emperors (misc)	5	\$13	\$2.50
Pomfret	3	\$6	\$1.75
Surgeonfishes/tangs	537	\$1,066	\$1.98 *
Unicornfishes (misc)	235	\$470	\$2.00 *
Squirrelfish	121	\$226	\$1.87 *
Parrotfishes	340	\$677	\$1.99 *
Mahimahi	6,135	\$11,343	\$1.85
Swordfish	130	\$265	\$2.04 *
Blue marlin	166	\$158	\$0.95
Spearfish	46	\$69	\$1.50
Rainbow runner	18	\$32	\$1.80
Wahoo	24,764	\$23,247	\$0.94
Skipjack Tuna	68,658	\$41,176	\$0.60
Dogtooth tuna	19	\$46	\$2.40
Albacore	1,184,855	\$1,028,682	\$0.87
Yellowfin Tuna	143,822	\$125,866	\$0.88
BigeyeTuna	80,615	\$89,612	\$1.11
Kawakawa	4	\$11	\$2.75
TOTAL	1,511,016	\$1,324,261	\$0.88

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.10
American Samoa September 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	7	\$19	\$2.69
Barracudas	414	\$540	\$1.30
Peacock grouper	4	\$7	\$2.00
Tomato grouper	4	\$10	\$2.59
Lunartail grouper	3	\$8	\$2.75
Humpback snapper	4	\$11	\$2.72
Yellow opakapaka	3	\$8	\$2.69
Hawaiian opakapaka	3	\$8	\$2.59
Blue lined gindai	2	\$4	\$2.00
Gindai (flower snap)	2	\$5	\$2.62
Onaga (longtail snapper)	9	\$23	\$2.58
Ehu (squirrelfish snap.)	25	\$66	\$2.65
Pomfret	1	\$1	\$1.73
Rabbitfish	4	\$7	\$2.00
Surgeonfishes/tangs	600	\$1,200	\$2.00 *
Unicornfishes (misc)	232	\$443	\$1.91 *
Squirrelfish	126	\$244	\$1.94 *
Parrotfishes	890	\$1,664	\$1.87 *
Goatfish	60	\$120	\$2.00
Inshore groupers	113	\$198	\$1.75 *
Mahimahi	6,126	\$11,687	\$1.91
Swordfish	344	\$774	\$2.25 *
Blue marlin	33	\$34	\$1.03
Spearfish	74	\$110	\$1.50
Rainbow runner	24	\$39	\$1.60
Wahoo	22,044	\$22,302	\$1.01
Skipjack Tuna	47,408	\$32,629	\$0.69
Dogtooth tuna	11	\$26	\$2.40
Albacore	1,123,683	\$984,971	\$0.88
Yellowfin Tuna	132,560	\$113,345	\$0.86
Bigeye Tuna	36,746	\$40,837	\$1.11
Spiny lobster	80	\$273	\$3.40
Octopus	8	\$25	\$3.00
TOTAL	1,371,645	\$1,211,638	\$0.88

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.11
American Samoa October 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb	
Black jack	44	\$108	\$2.49	
Whitemouth trevally	7	\$14	\$2.00	
Barracudas	47	\$94	\$2.00	
Groupers (misc)	49	\$96	\$1.97	
Peacock grouper	3	\$6	\$2.00	
Flagtail grouper	12	\$29	\$2.38	
Tomato grouper	10	\$26	\$2.59	
Blacktip grouper	11	\$30	\$2.75	
Lunartail grouper	7	\$19	\$2.75	
Blue lined snapper	62	\$124	\$2.01	
Rufous snapper	8	\$18	\$2.28	
Humpback snapper	30	\$62	\$2.04	
Gray jobfish	80	\$130	\$1.64	
Yellow opakapaka	145	\$531	\$3.68	
Hawaiian opakapaka	8	\$21	\$2.59	
Blue lined gindai	10	\$20	\$2.00	
Gindai (flower snap)	11	\$29	\$2.62	
Lehi (silverjaw)	30	\$76	\$2.59	
Onaga (longtail snapper)	32	\$82	\$2.58	
Ehu (squirrelfish snap.)	90	\$239	\$2.65	
Stone's snapper	11	\$30	\$2.75	
Emperors (misc)	119	\$232	\$1.96	
Pomfret	2	\$3	\$1.76	
Surgeonfishes/tangs	819	\$1,633	\$1.99	*
Unicornfishes (misc)	248	\$493	\$1.99	*
Squirrelfish	78	\$155	\$1.98	*
Parrotfishes	696	\$1,351	\$1.94	*
Inshore groupers	62	\$109	\$1.75	*
Mahimahi	3,236	\$5,965	\$1.84	
Swordfish	490	\$1,140	\$2.33	*
Blue marlin	83	\$86	\$1.03	
Spearfish	37	\$55	\$1.50	
Rainbow runner	4	\$7	\$1.80	
Wahoo	29,215	\$30,160	\$1.03	
Skipjack Tuna	40,938	\$27,173	\$0.66	
Dogtooth tuna	34	\$82	\$2.40	
Albacore	1,044,418	\$915,601	\$0.88	
Yellowfin Tuna	70,986	\$62,390	\$0.88	
Bigeye Tuna	32,099	\$35,673	\$1.11	
Spiny lobster	19	\$57	\$3.00	*
TOTAL	1,224,286	\$1,084,147	\$0.89	

* Data replaced or modified by Actual Commercial Landings Data

**Table II.1.12
American Samoa November 2002 Estimated Commercial Landings**

Species	Pounds	Value	Price/Lb
Black jack	27	\$66	\$2.43
Whitemouth trevally	17	\$34	\$2.00
Barracudas	40	\$80	\$2.00
Other Sharks	140	\$70	\$0.50
Groupers (misc)	40	\$79	\$1.97
Peacock grouper	1	\$2	\$2.00
Flagtail grouper	8	\$19	\$2.38
Tomato grouper	113	\$233	\$2.05
Blacktip grouper	4	\$11	\$2.75
Lunartail grouper	88	\$154	\$1.75
Blue lined snapper	56	\$115	\$2.06
Rufous snapper	3	\$7	\$2.28
Humpback snapper	82	\$158	\$1.94
Gray jobfish	67	\$111	\$1.66
Yellow opakapaka	117	\$432	\$3.69
Hawaiian opakapaka	4	\$10	\$2.59
Blue lined gindai	9	\$18	\$2.00
Gindai (flower snap)	5	\$13	\$2.62
Lehi (silverjaw)	15	\$38	\$2.49
Onaga (longtail snapper)	41	\$106	\$2.58
Ehu (squirrelfish snap.)	61	\$162	\$2.65
Stone's snapper	4	\$11	\$2.75
Emperors (misc)	183	\$362	\$1.98
Pomfret	1	\$2	\$1.76
Rabbitfish	1	\$2	\$2.00
Surgeonfishes/tangs	753	\$1,488	\$1.98 *
Unicornfishes (misc)	389	\$739	\$1.90 *
Squirrelfish	157	\$300	\$1.91 *
Parrotfishes	988	\$1,841	\$1.86 *
Goatfish	20	\$40	\$2.00
Inshore groupers	96	\$166	\$1.74 *
Mahimahi	3,279	\$5,300	\$1.62
Swordfish	499	\$906	\$1.82 *
Blue marlin	5,725	\$5,725	\$1.00
Spearfish	37	\$55	\$1.50
Rainbow runner	6	\$11	\$1.80
Wahoo	38,301	\$42,037	\$1.10
Skipjack Tuna	133,667	\$90,639	\$0.68
Albacore	965,788	\$857,166	\$0.89
Yellowfin Tuna	76,039	\$65,924	\$0.87
Bigeye Tuna	29,345	\$32,296	\$1.10
Kawakawa	23	\$63	\$2.75
Spiny lobster	71	\$213	\$3.00 *
Octopus	3	\$8	\$3.00
TOTAL	1,256,315	\$1,107,214	\$0.88

* Data replaced or modified by Actual Commercial Landings Data

Table II.1.13

American Samoa December 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb
Black jack	10	\$21	\$2.00
Other Sharks	4,466	\$2,233	\$0.50
Groupers (misc)	40	\$79	\$1.97
Tomato grouper	29	\$58	\$2.00
Lunartail grouper	23	\$37	\$1.65
Blue lined snapper	44	\$85	\$1.94
Humpback snapper	39	\$75	\$1.94
Gray jobfish	57	\$86	\$1.50
Yellow opakapaka	111	\$415	\$3.75
Lehi (silverjaw)	10	\$24	\$2.36
Ehu (squirrelfish snap.)	13	\$26	\$2.00 *
Emperors (misc)	120	\$236	\$1.96
Pomfret	1	\$3	\$1.75
Surgeonfishes/tangs	788	\$1,576	\$2.00 *
Unicornfishes (misc)	266	\$524	\$1.97 *
Squirrelfish	144	\$287	\$1.99 *
Parrotfishes	587	\$1,154	\$1.97 *
Inshore groupers	19	\$32	\$1.75 *
Mahimahi	9,292	\$17,096	\$1.84
Swordfish	149	\$209	\$1.40
Blue marlin	233	\$240	\$1.03
Black marlin	6,239	\$6,239	\$1.00
Sailfish	213	\$283	\$1.33
Spearfish	28	\$41	\$1.50
Rainbow runner	8	\$15	\$1.80
Wahoo	44,980	\$57,355	\$1.28
Skipjack Tuna	70,822	\$65,630	\$0.93
Albacore	725,117	\$673,919	\$0.93
Yellowfin Tuna	92,959	\$99,898	\$1.07
Bigeye Tuna	29,775	\$33,091	\$1.11
Spiny lobster	10	\$30	\$3.00 *
TOTAL	986,593	\$960,995	\$0.97

* Data replaced or modified by Actual Commercial Landings Data

Figure II.1.1

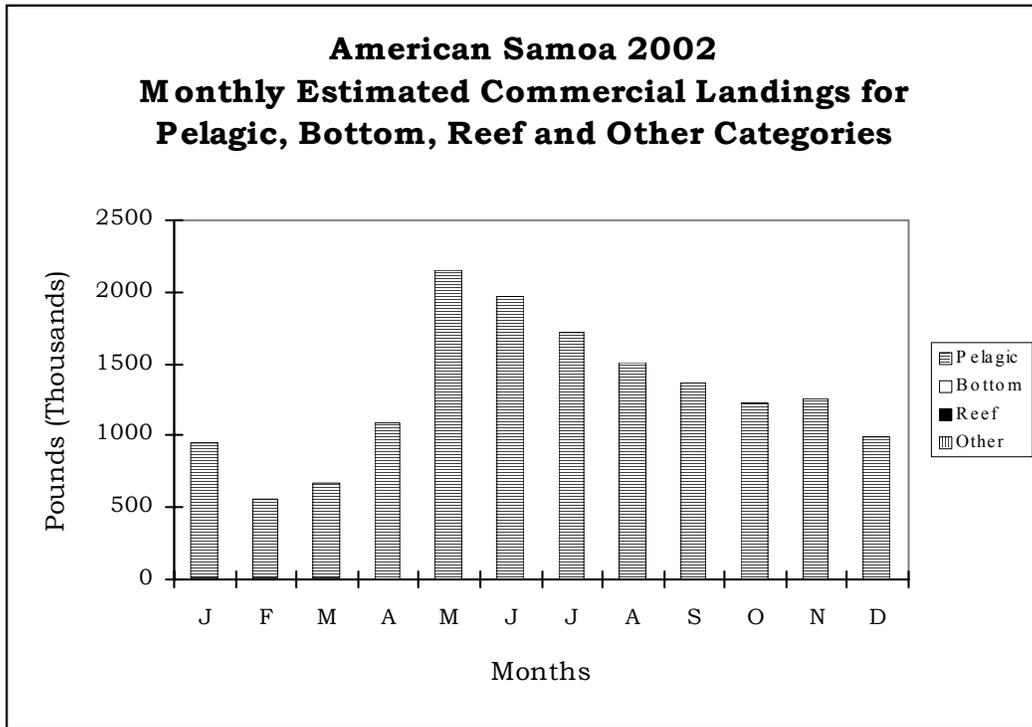


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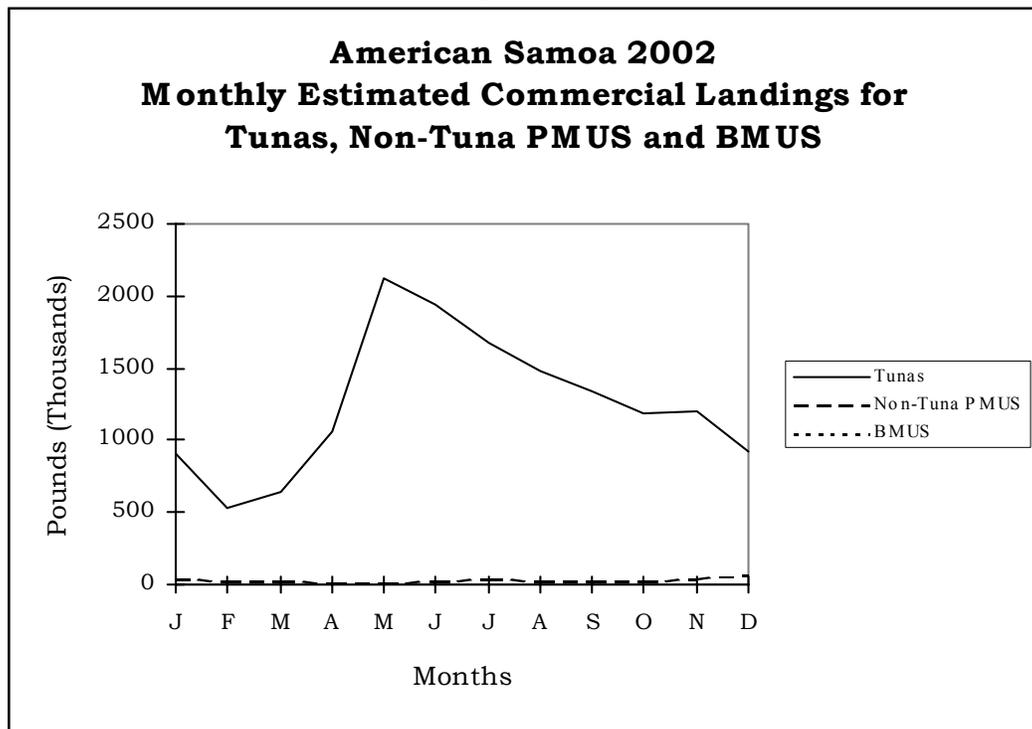


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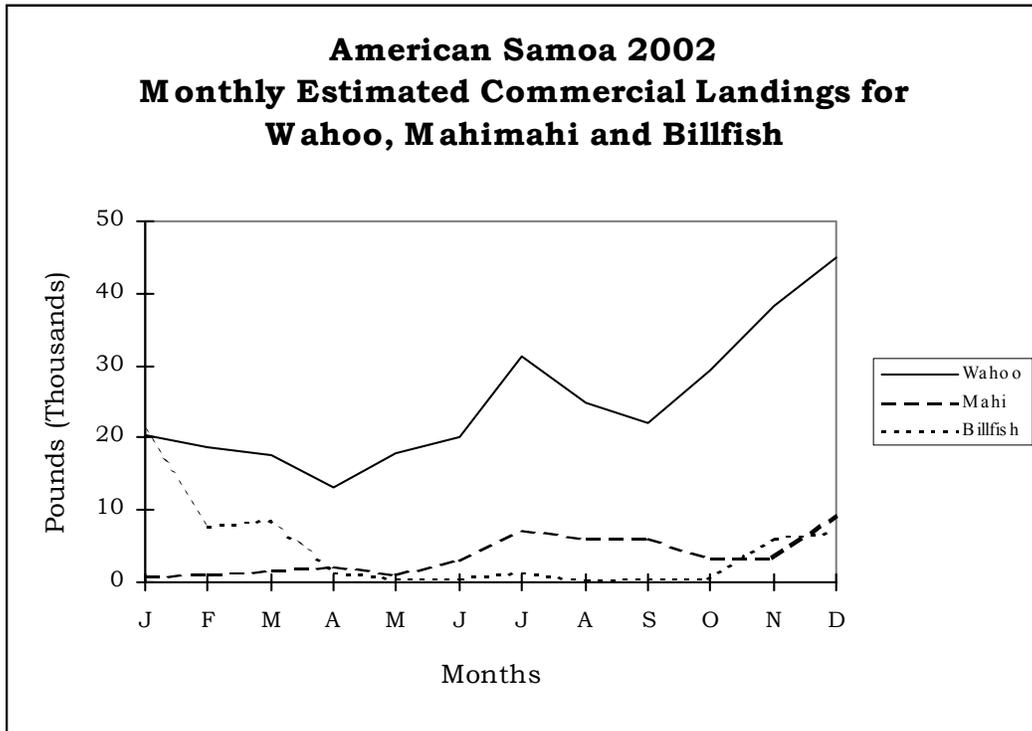


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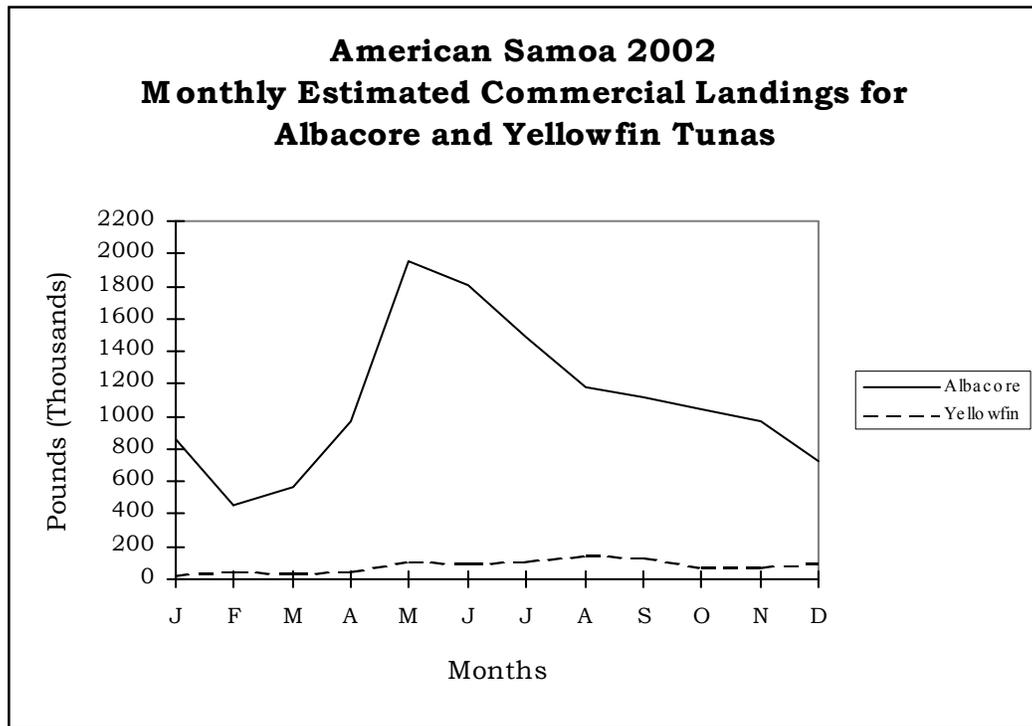


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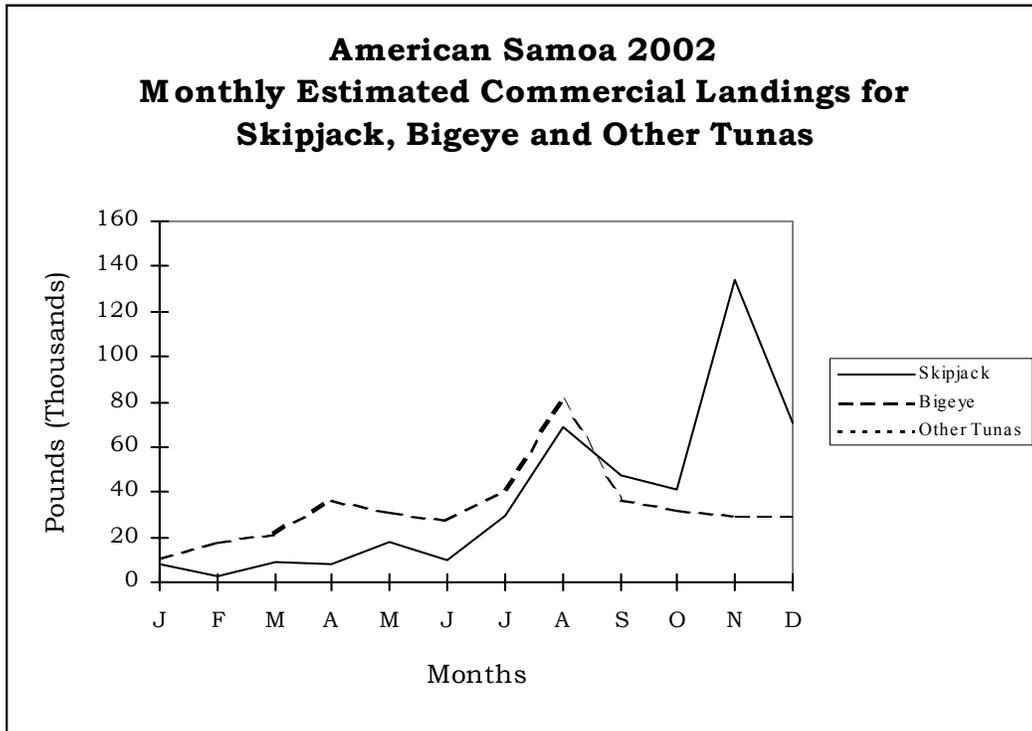


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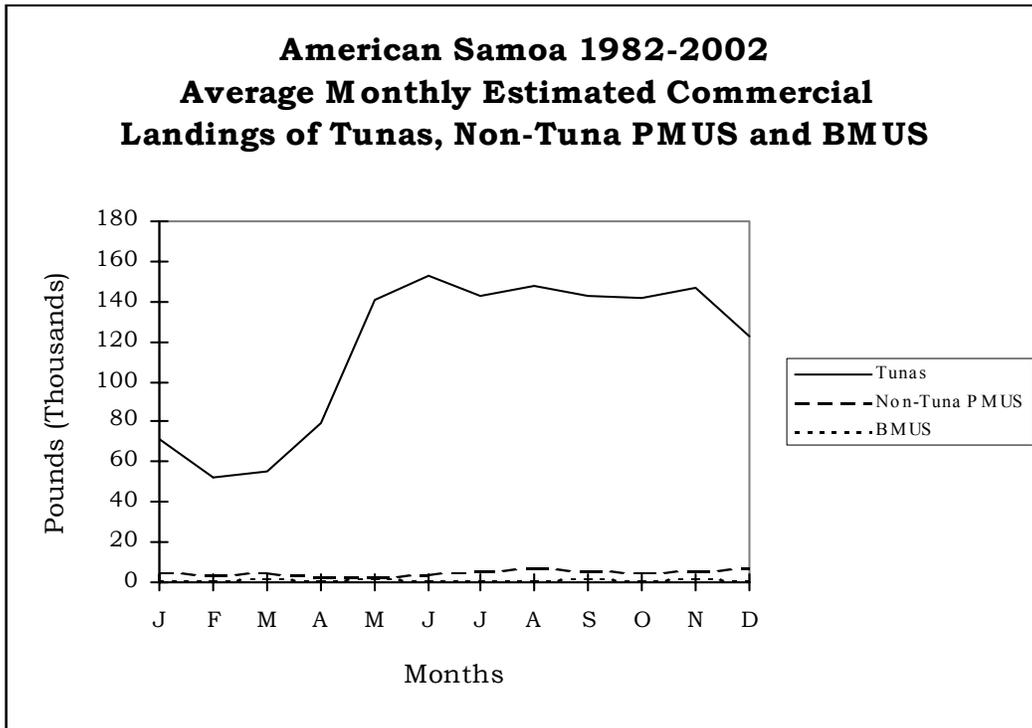


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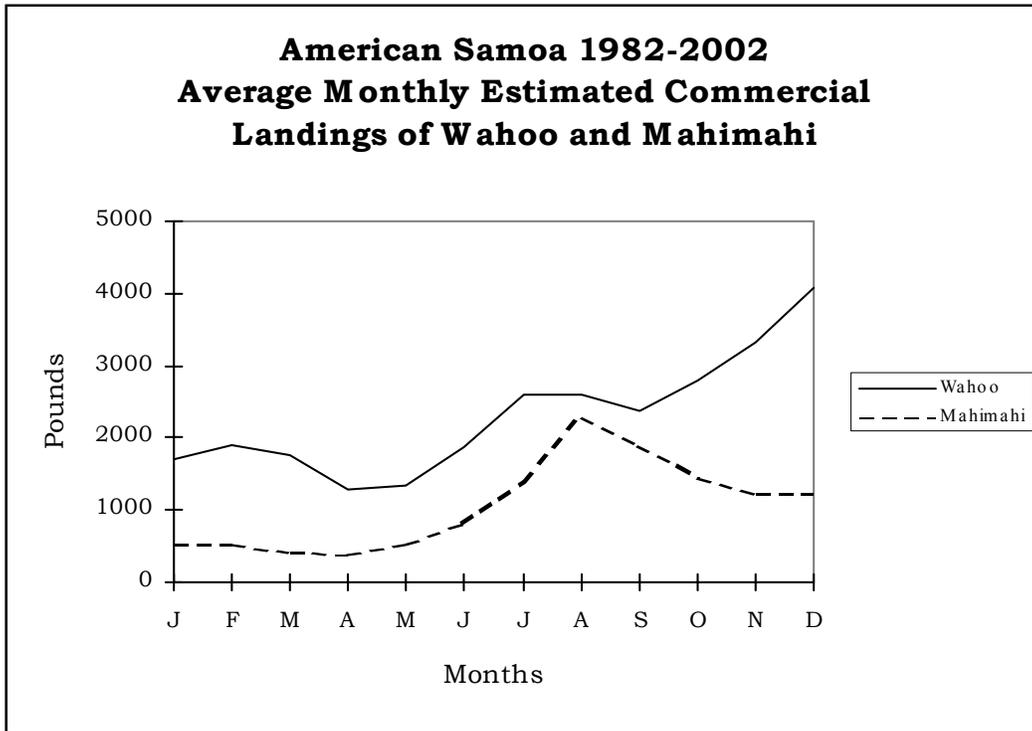


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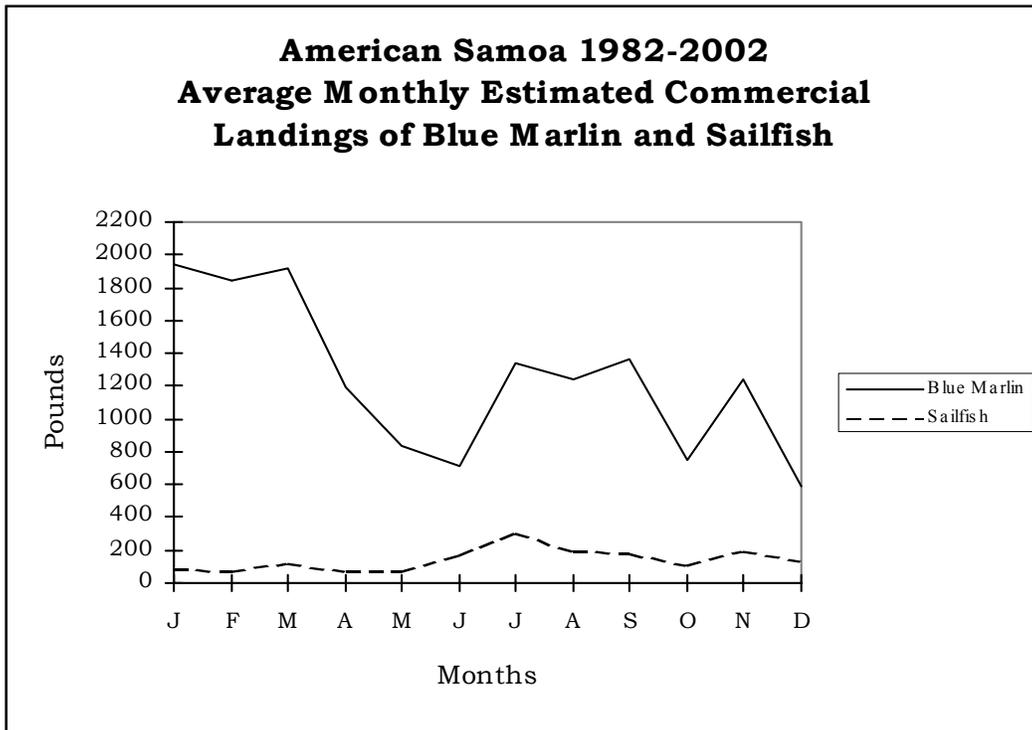


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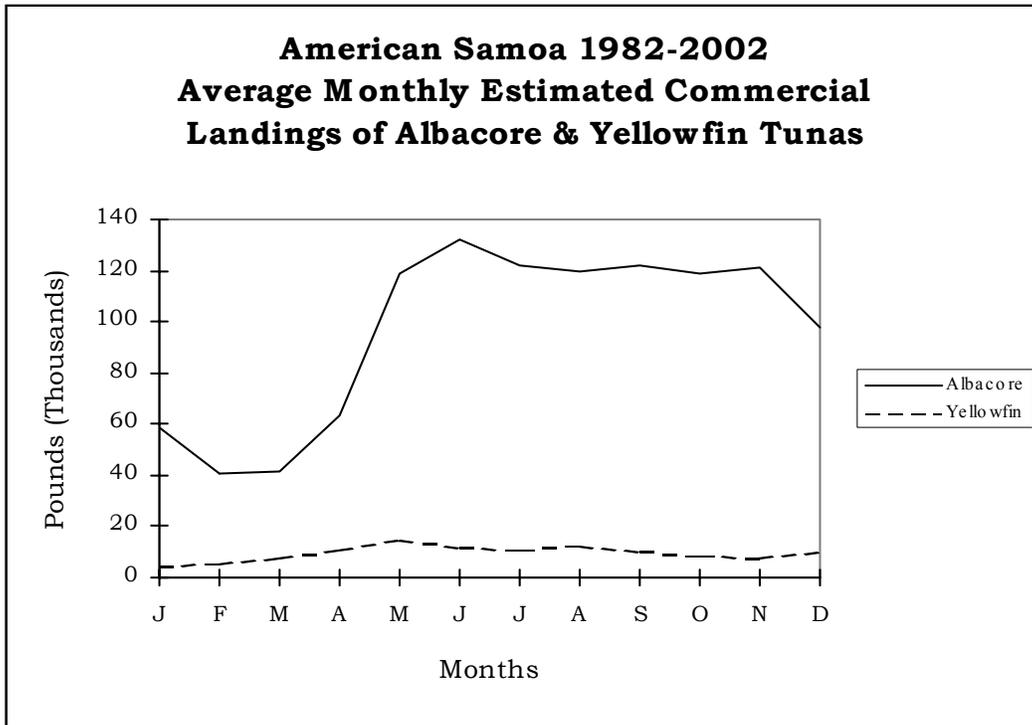


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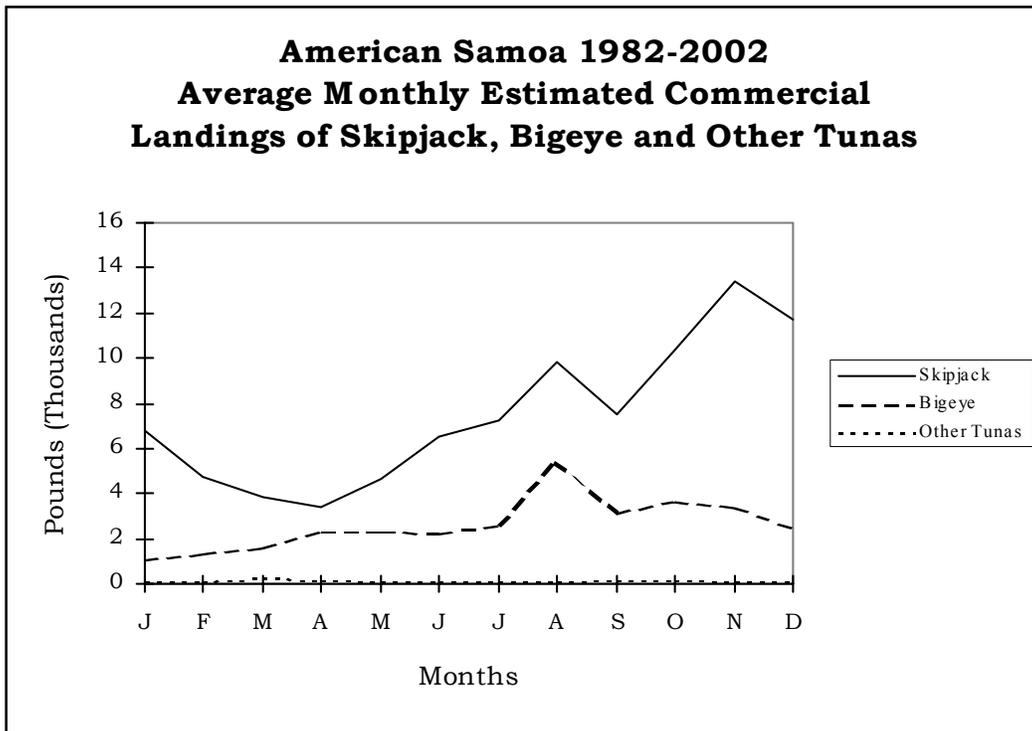


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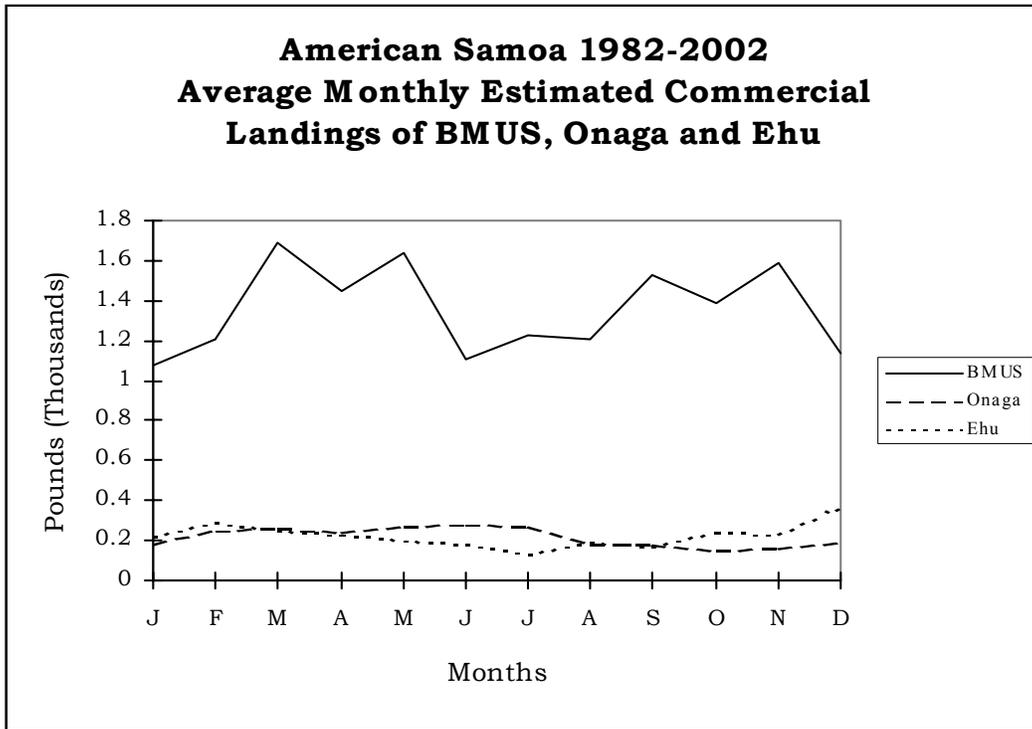


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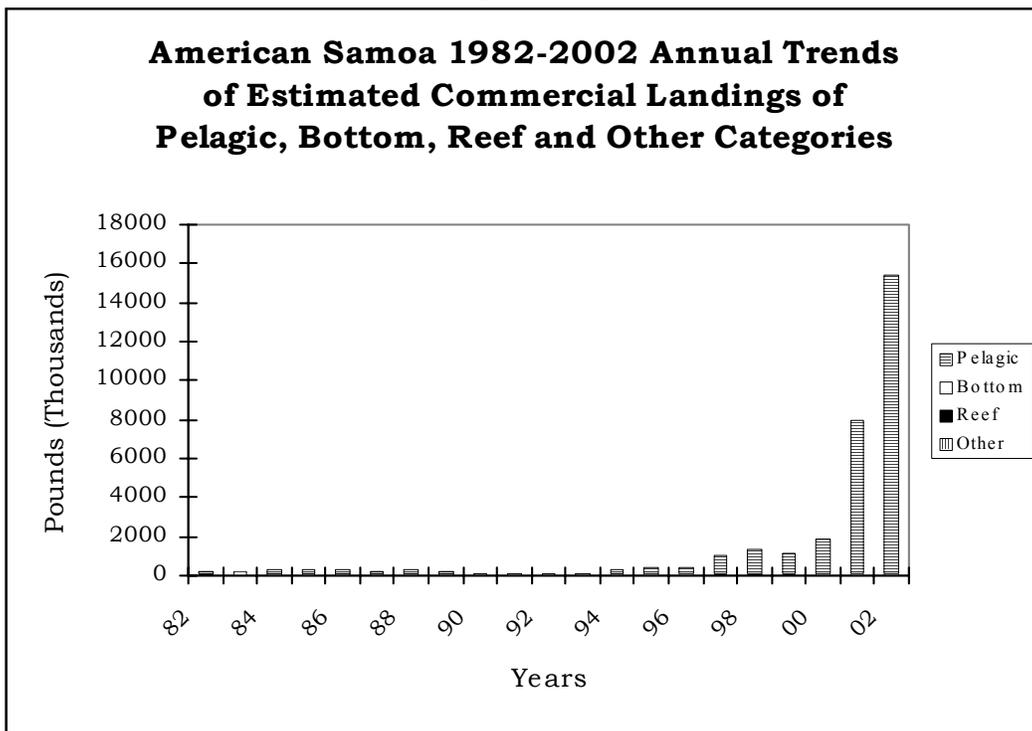


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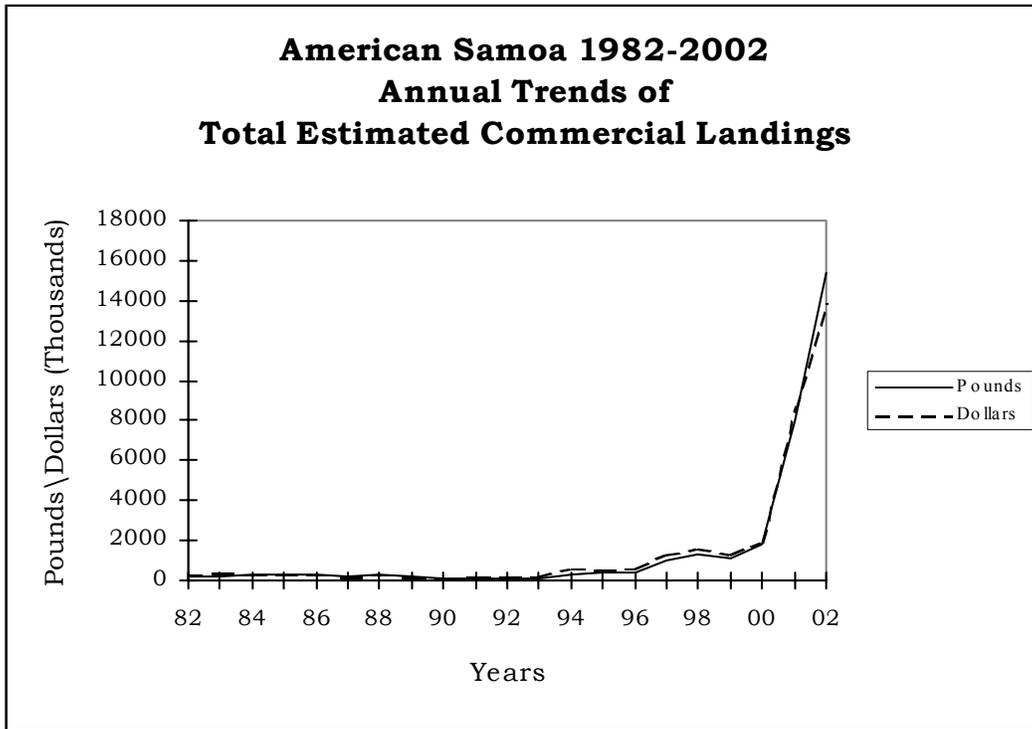


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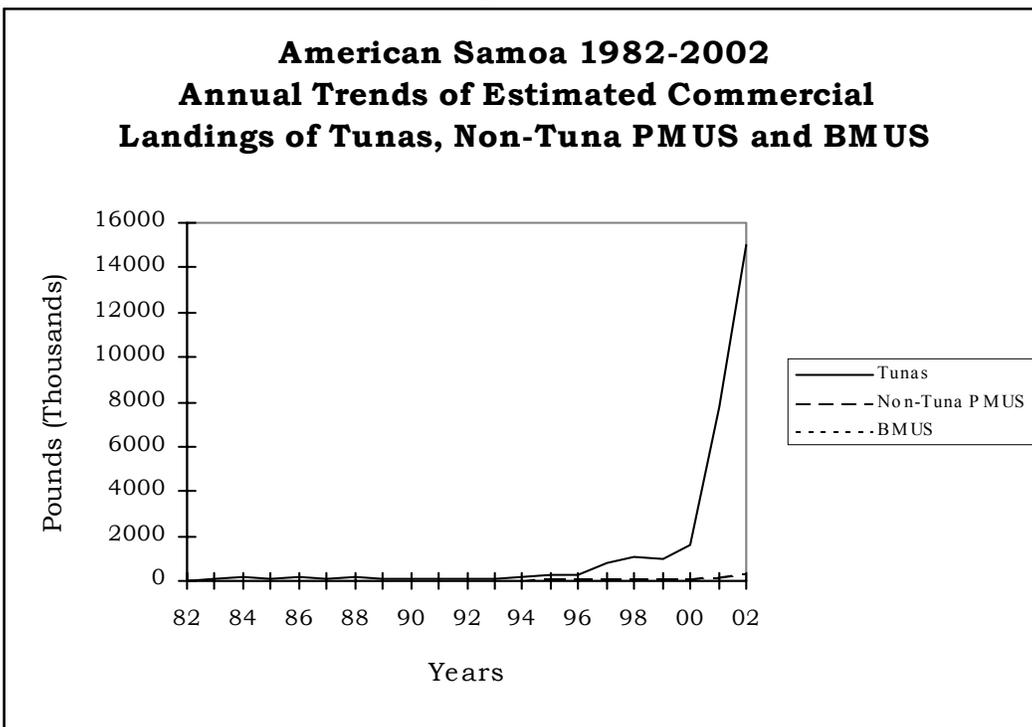


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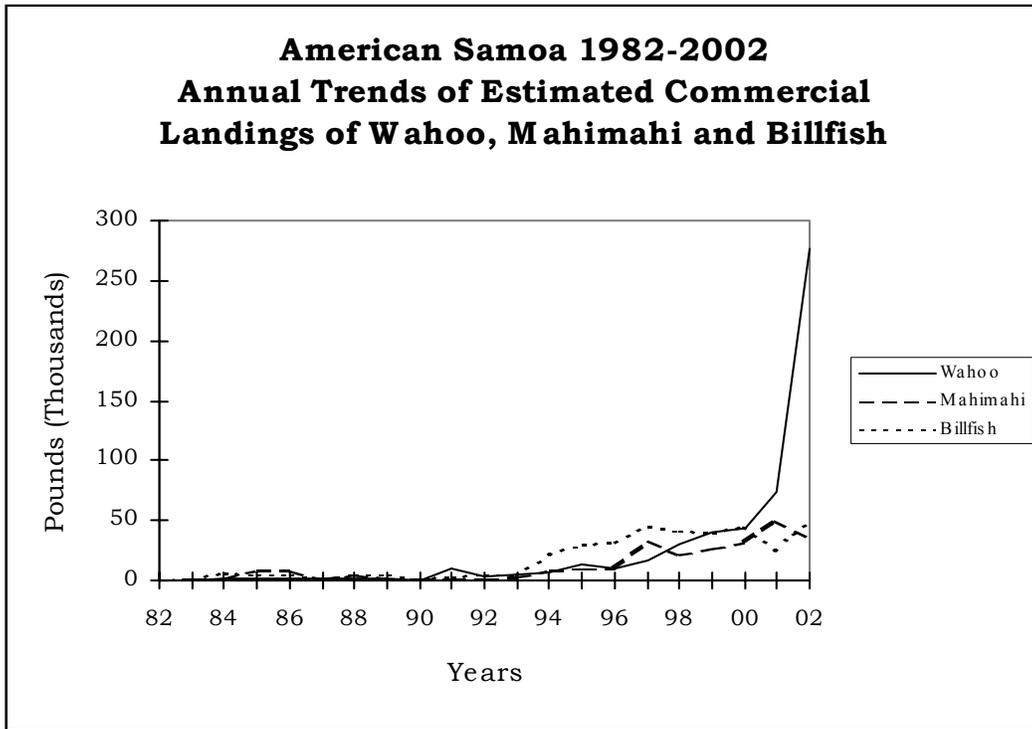


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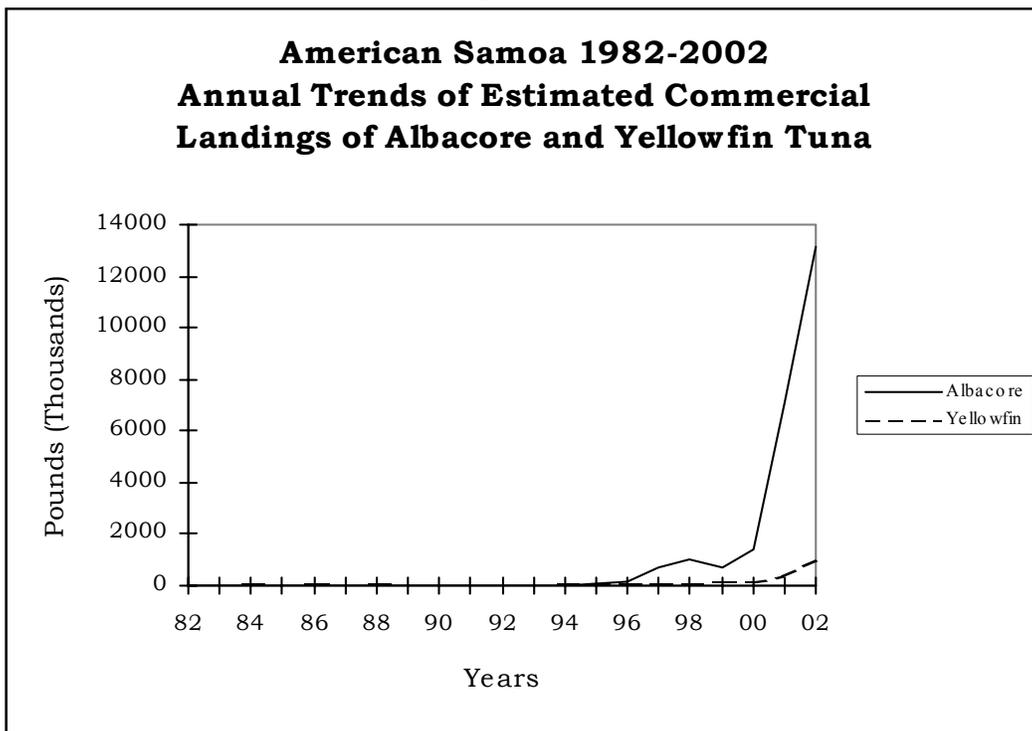


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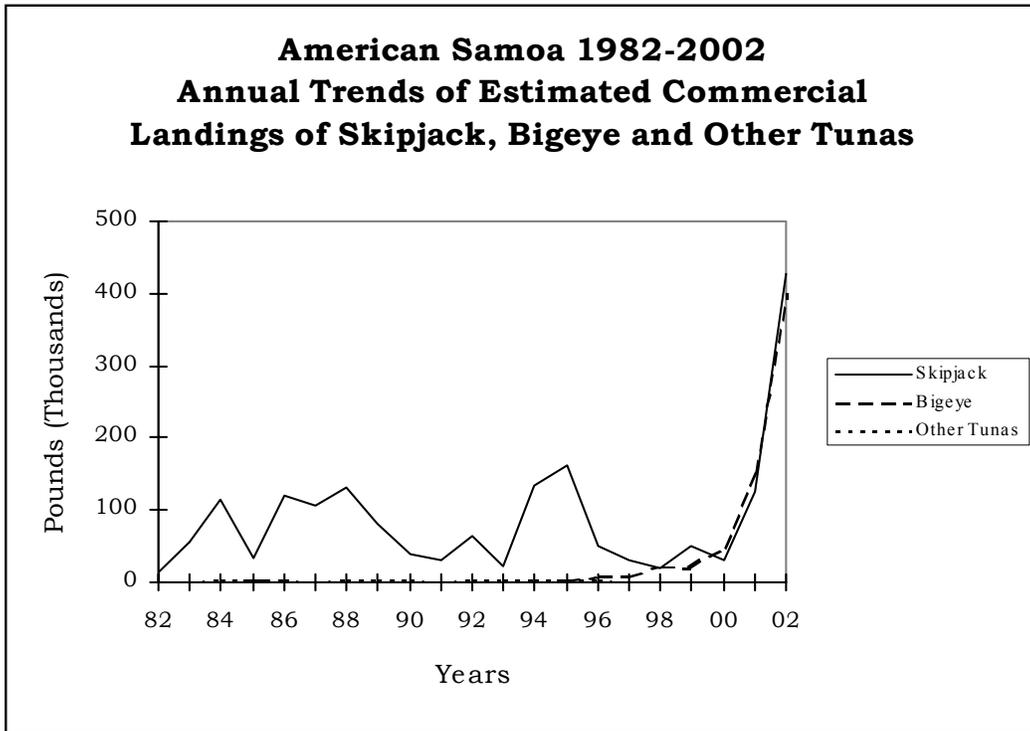


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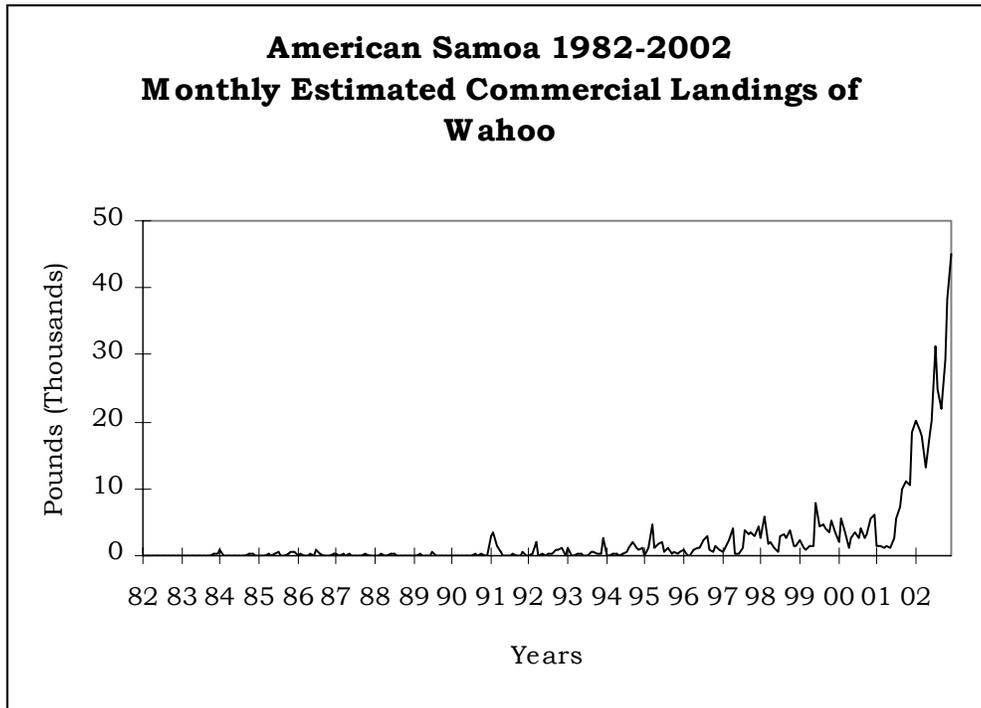


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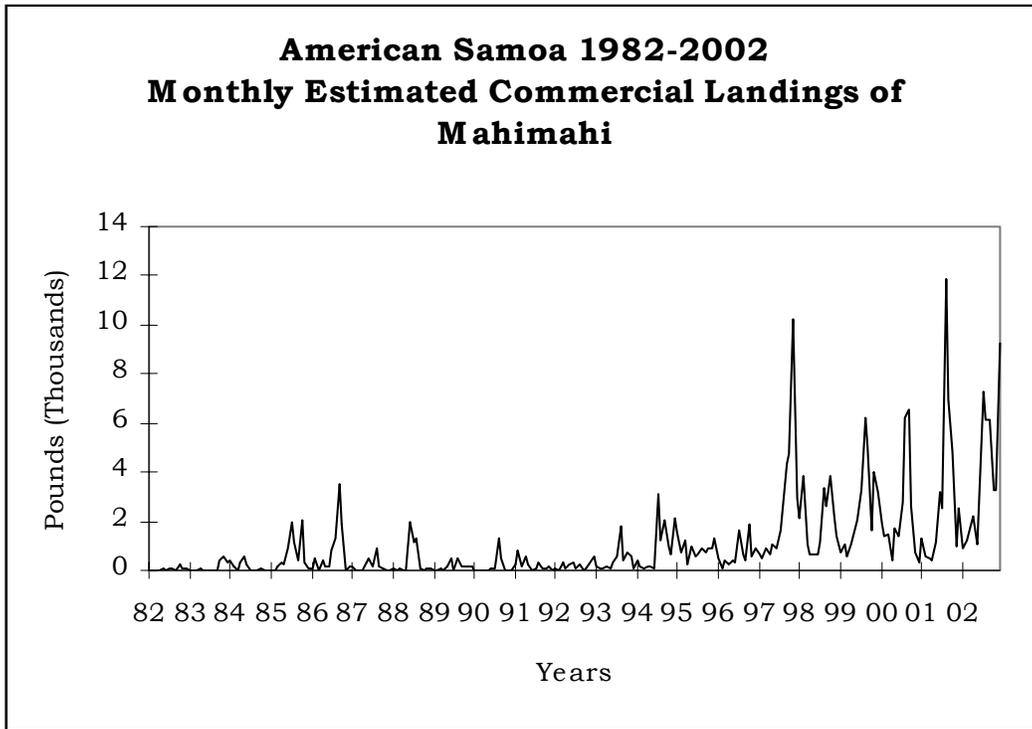


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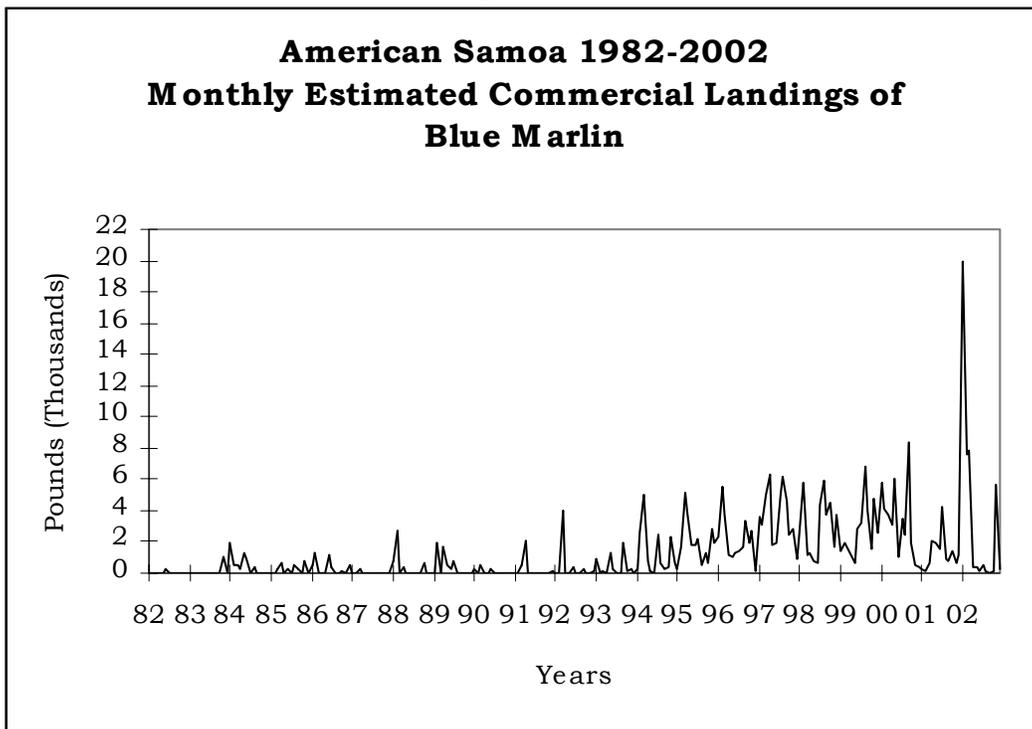


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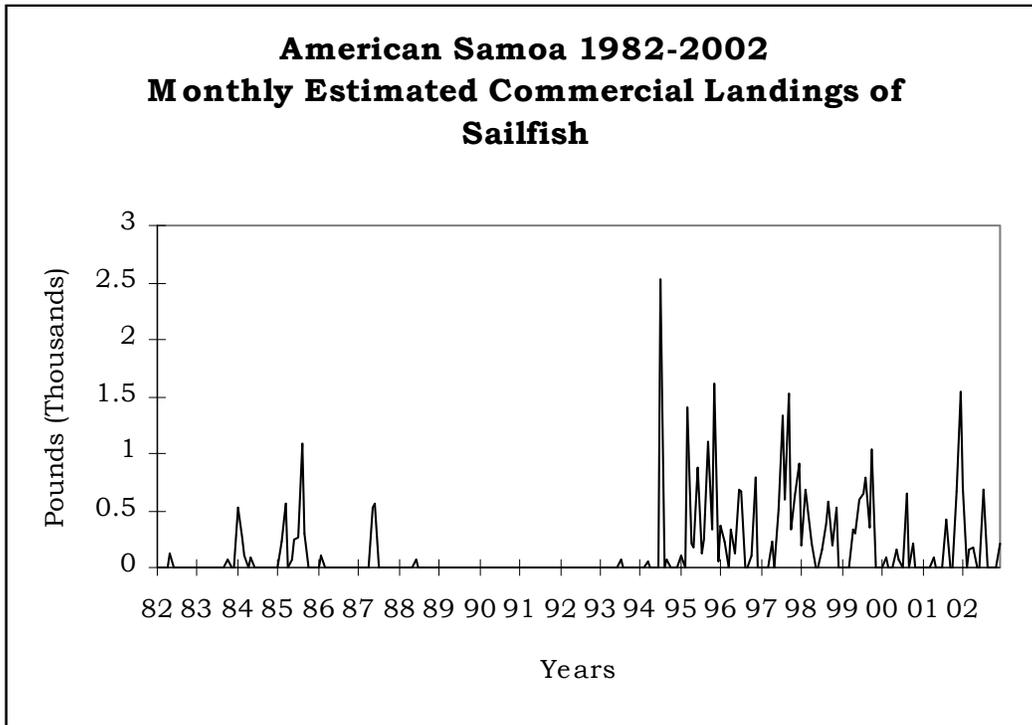


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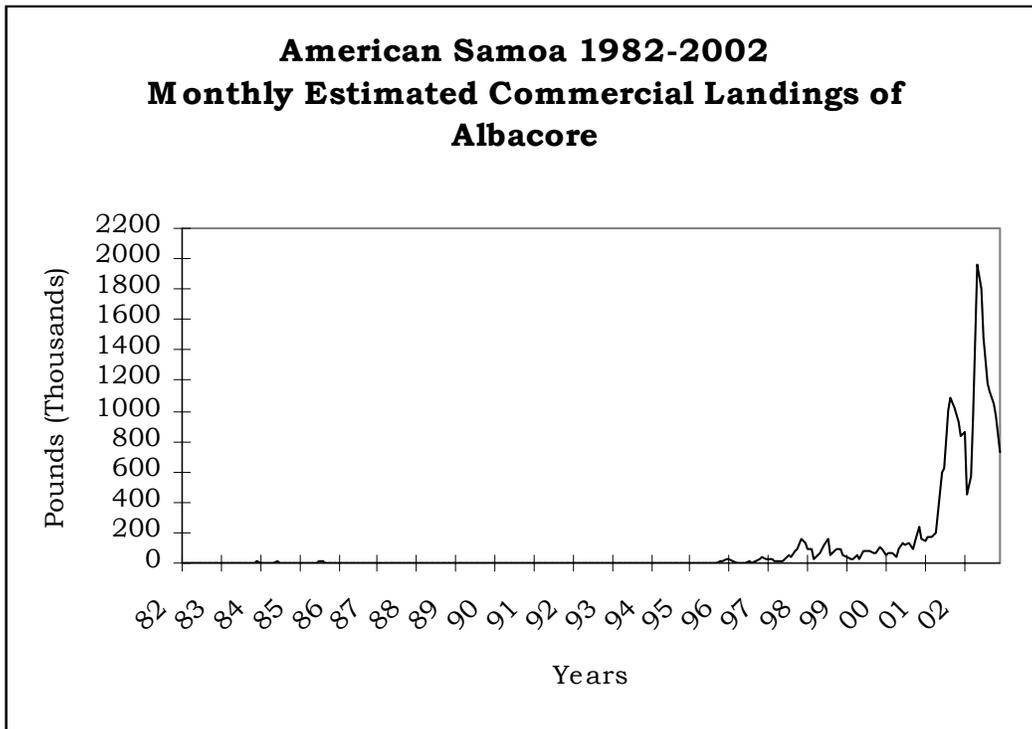


Figure II 4.6

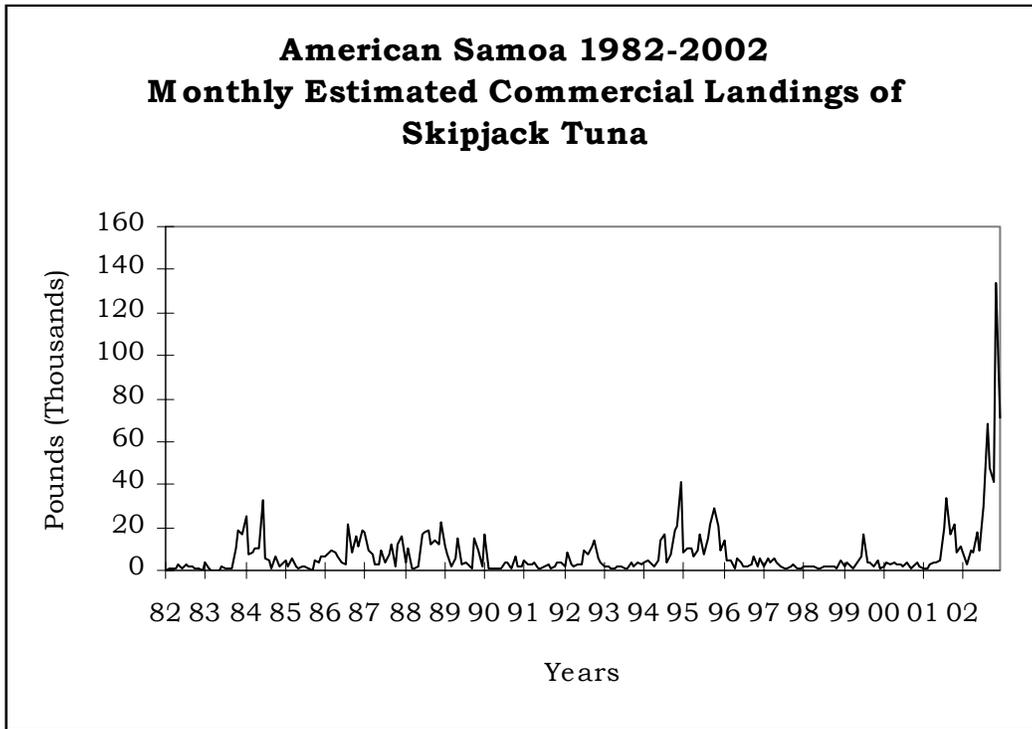


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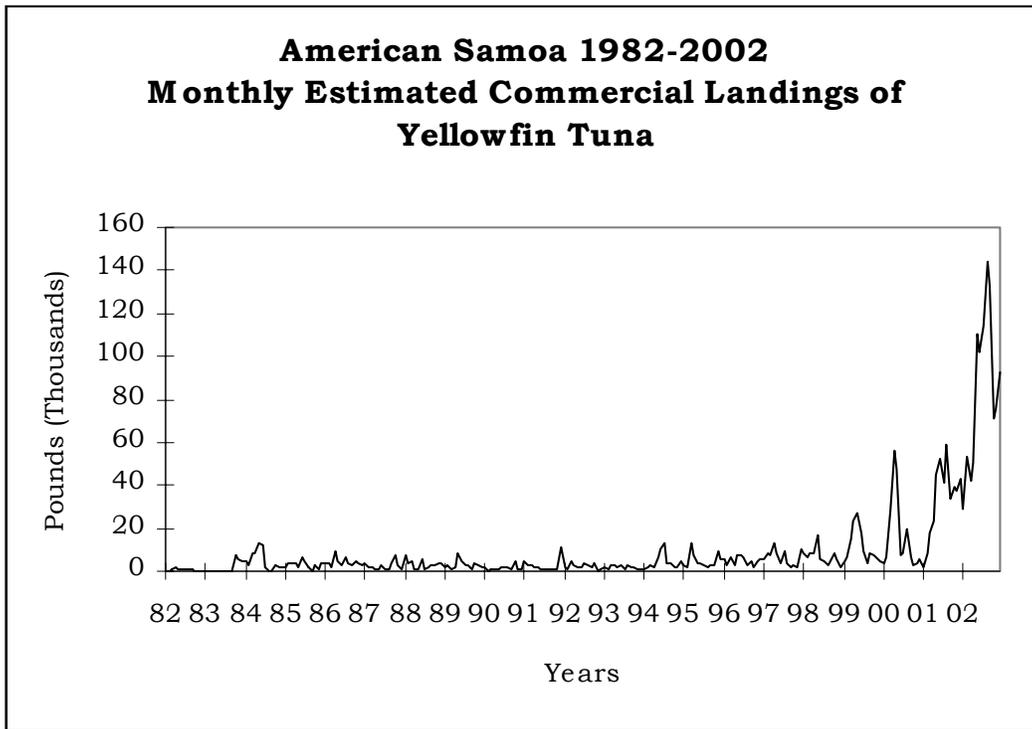


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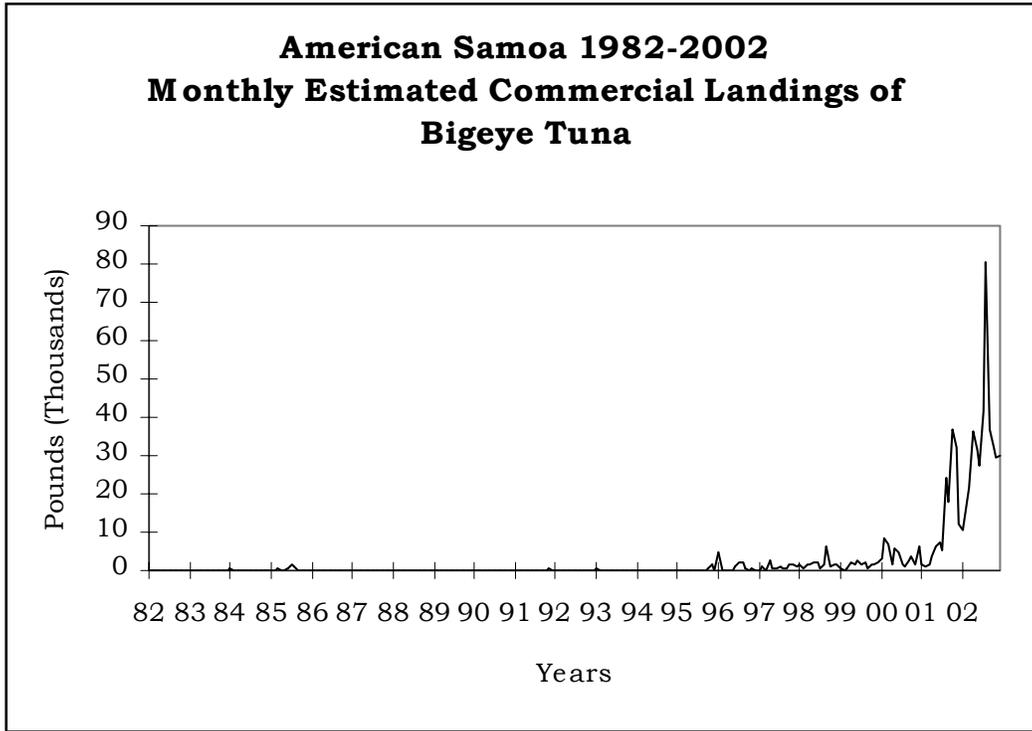


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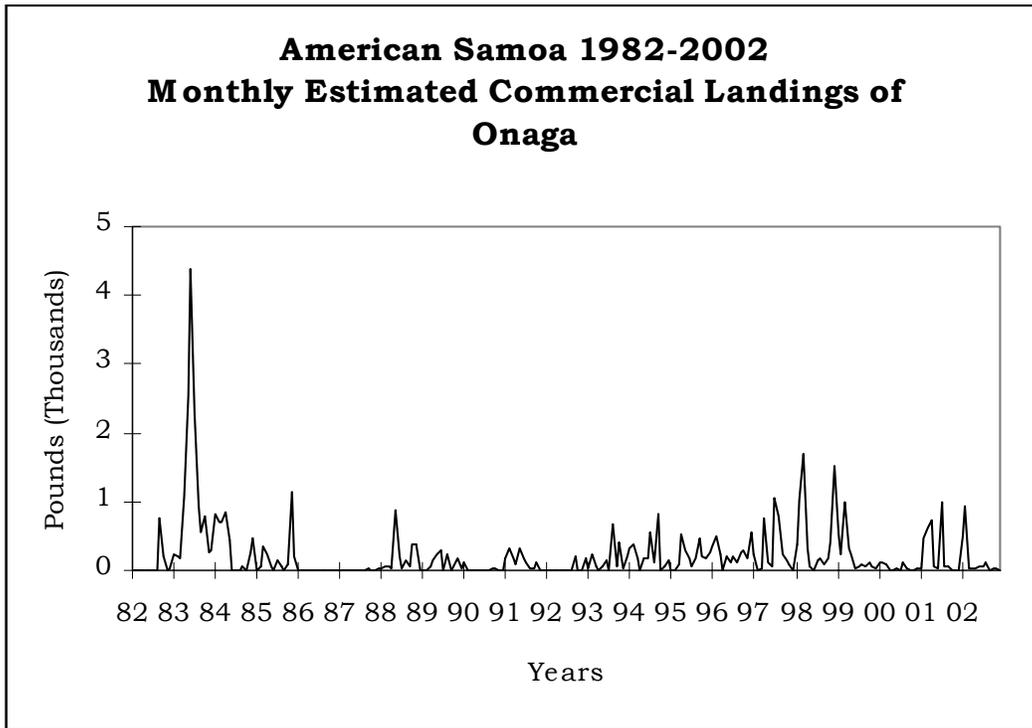
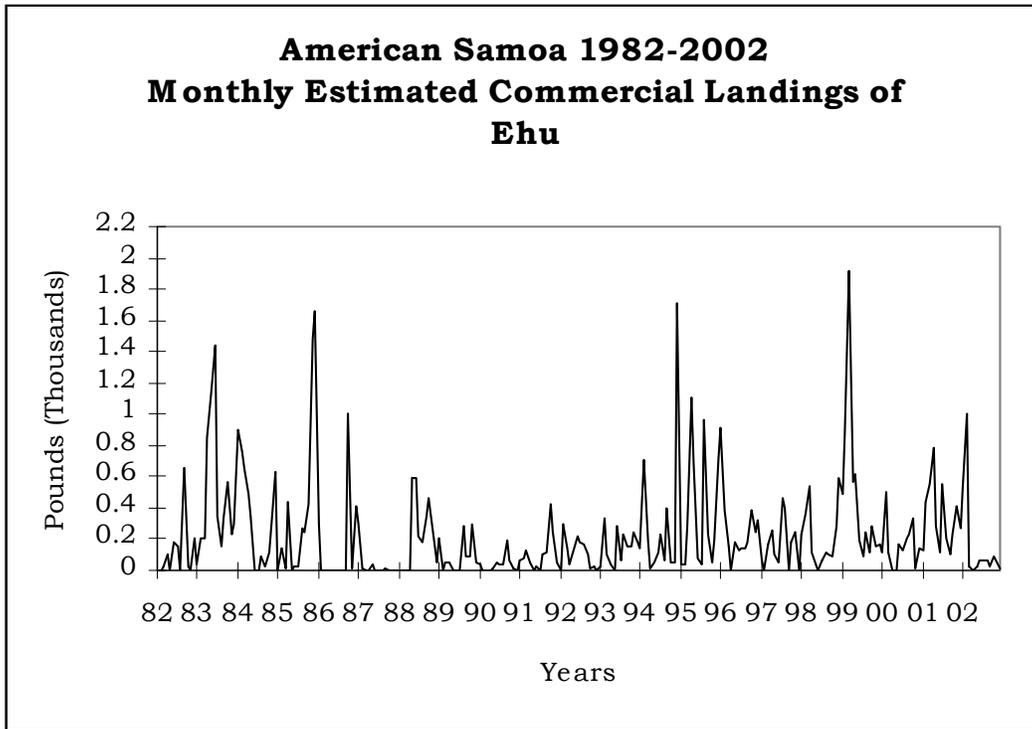


Figure II.4.10



**COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS
2002 FISHERY STATISTICS**

Compiled by
Division of Fish and Wildlife
and the
Western Pacific Fishery Information Network

June 2004

CONTENTS

	Page
Introduction	III.1
Data Collecting System	III.2
Data Processing System	III.3
Data Reporting System	III.3
Tables and Figures	III.6

LIST OF CNMI SUMMARY TABLES

Table	Title	Page
III.1.1	CNMI 2002 Estimated Commercial Landings	III.6
III.1.2	CNMI January 2002 Estimated Commercial Landings	III.7
III.1.3	CNMI February 2002 Estimated Commercial Landings	III.8
III.1.4	CNMI March 2002 Estimated Commercial Landings	III.9
III.1.5	CNMI April 2002 Estimated Commercial Landings	III.10
III.1.6	CNMI May 2002 Estimated Commercial Landings	III.11
III.1.7	CNMI June 2002 Estimated Commercial Landings	III.12
III.1.8	CNMI July 2002 Estimated Commercial Landings	III.13
III.1.9	CNMI August 2002 Estimated Commercial Landings	III.14
III.1.10	CNMI September 2002 Estimated Commercial Landings	III.15
III.1.11	CNMI October 2002 Estimated Commercial Landings	III.16
III.1.12	CNMI November 2002 Estimated Commercial Landings	III.17
III.1.13	CNMI December 2002 Estimated Commercial Landings	III.18

LIST OF CNMI FIGURES

Figure	Title	Page
III.1.1	CNMI 2002 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	III.19
III.1.2	CNMI 2002 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.19
III.1.3	CNMI 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.20
III.1.4	CNMI 2002 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.20
III.1.5	CNMI 2002 Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.21
III.2.1	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.21
III.2.2	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.22
III.2.3	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.22
III.2.4	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.23
III.2.5	CNMI 1981-2002 Average Monthly Estimated Commercial Landings of Parrotfish, Spiny Lobsters, and Rabbitfish	III.23
III.3.1	CNMI 1981-2002 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	III.24
III.3.2	CNMI 1981-2002 Annual Trends of Estimated Total Commercial Landings	III.24
III.3.3	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Tunas, PMUS, and BMUS	III.25
III.3.4	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	III.25
III.3.5	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	III.26
III.3.6	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Bigeye Scad, Emperors, and Onaga	III.26
III.3.7	CNMI 1981-2002 Annual Trends: Estimated Commercial Landings of Parrotfish, Spiny Lobster, and Rabbitfish	III.27

LIST OF CNMI FIGURES (cont.)

Figure	Title	Page
III.4.1	CNMI 1981-2002 Monthly Estimated Commercial Landings of Wahoo	III.27
III.4.2	CNMI 1981-2002 Monthly Estimated Commercial Landings of Mahimahi	III.28
III.4.3	CNMI 1981-2002 Monthly Estimated Commercial Landings of Parrotfish	III.28
III.4.4	CNMI 1981-2002 Monthly Estimated Commercial Landings of Dogtooth Tuna	III.29
III.4.5	CNMI 1981-2002 Monthly Estimated Commercial Landings of Skipjack Tuna	III.29
III.4.6	CNMI 1981-2002 Monthly Estimated Commercial Landings of Yellowfin Tuna	III.30
III.4.7	CNMI 1981-2002 Monthly Estimated Commercial Landings of Emperors	III.30
III.4.8	CNMI 1981-2002 Monthly Estimated Commercial Landings of Bigeye Scad	III.31
III.4.9	CNMI 1981-2002 Monthly Estimated Commercial Landings of Onaga	III.31
III.4.10	CNMI 1981-2002 Monthly Estimated Commercial Landings of Spiny Lobster	III.32
III.4.11	CNMI 1981-2002 Monthly Estimated Commercial Landings of Rabbitfish	III.32

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS 2002 FISHERY STATISTICS

INTRODUCTION

Location: 14° to 21°N latitude, 145°E longitude

Main Islands: Saipan, Rota, Tinian

Population: about 80,000 (*The World Factbook*, 2003)

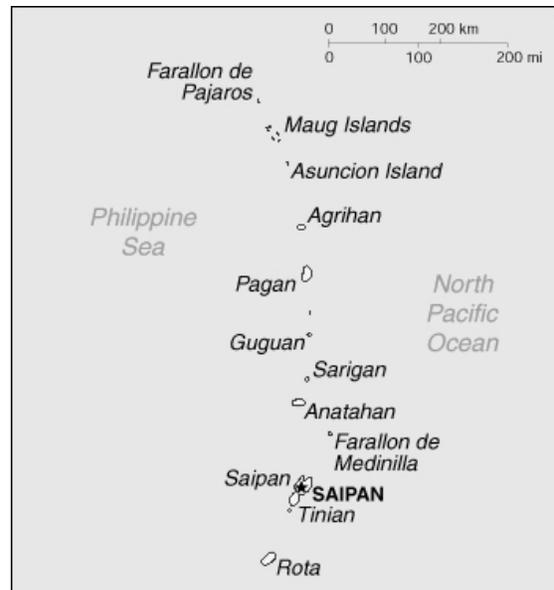
Economy: tourism, agriculture, garment production

The chief domestic commercial fishery of the CNMI is a small boat, one-day troll fishery, and most of the boats are 12- to 24-foot outboard-powered, runabout-type vessels. However, a few larger boats are used mainly for bottomfish fishing around the islands north of Saipan, and a small charter fleet also exists.

During 2002, 55 vessels were registered as full-time commercial fishing boats, and 41 were part-time. Also, 26 vessels were registered as “charter” for their primary use, and 312 boats were nonfishing or recreational.

Trolling is by far the most common fishing method, but bottomfishing and reef fishing are also popular. Reef fish make up a significant portion of the total commercial catch and are an important component of the local diet. In recent years, several larger boats started fishing more intensively for bottomfish around the islands north of Saipan. While the vast majority of the domestic catch is consumed locally, there have been some exports to Guam, Hawaii, and Japan.

In 1982 WPacFIN significantly improved data collecting and processing systems by providing computer hardware, software, and training. Since then numerous system upgrades and replacements have been implemented to keep up with changing technologies and the increasing demands for improved fisheries statistics.



CNMI

source: <<http://www.cia.gov/cia/publications/factbook/cq.html>>;
The World Factbook

DATA COLLECTING SYSTEM

The Division of Fish and Wildlife (DFW) has been collecting fishery statistics on the commercial fishing fleet of Saipan since the mid-1970s. It also began collecting information on vessels transshipping tuna out of Tinian in 1983.

DFW's principal method of collecting domestic commercial fisheries data is a dealer invoicing system, sometimes referred to as a "trip ticket" system. The DFW provides numbered two-part invoices to all purchasers of fresh fishery products (including hotels, restaurants, stores, fish markets, and roadside vendors). Dealers then complete an invoice each time they purchase fish directly from fishermen; one copy goes to DFW and one copy goes to their records.

Some advantages of this data collection method are that it is relatively inexpensive to implement and maintain, is fairly easy to get complete coverage of the commercial fisheries, and DFW can provide feedback to dealers and fishermen to ensure data accuracy and continued cooperation.

There are some disadvantages: dependency on non-DFW personnel to identify the catch and record the data, restrictions on the types of data that can be collected, required education and cooperation of all fish purchasers, and limited recordings of fish actually sold to dealers. Therefore, a potentially important portion of the total landings is unrecorded.

Since 1982 DFW has tried to minimize these disadvantages in several ways: 1) maintain a close working relationship with dealers; 2) add new dealers to their list and educate them; and 3) implement a creel survey to help estimate total catch, including recreational and subsistence catch.

The current system collects data from dealers in Saipan, where DFW estimates over 90% of all CNMI commercial landings are made. The DFW also estimates that the proportion of total commercial landings that have been recorded in the Saipan database since 1983 is about 90%. Previous volumes of FSWP reported only recorded landings, but beginning with this volume, the data have been adjusted to represent 100% coverage and are referenced as "Estimated Commercial Landings" in the tables and charts.

Information collected from the fishermen includes the following:

- Date
- Buyer's Name (dealer)
- Seller's Name (fisherman)
- Species
- Weight (pounds)
- Price per Pound
- Value
- Invoice Number

III.3

These data elements are collected for all purchases of fishery products; however, species identification is frequently made only to a group level, especially for reef fish.

DATA PROCESSING SYSTEM

At the beginning of each month, a DFW employee visits each of the dealers on Saipan to collect the previous month's invoices, to resolve problems, and to answer any questions the dealers may have. The invoices are then returned to the office for an initial visual edit during the coding process and entered into the "Purchase" database. After the records are entered, reports are generated to help verify that all data were entered correctly. On a quarterly basis, copies of the database are sent to the Honolulu Laboratory, where the data are transferred to the central computer for additional verification before generating summary reports. These reports and databases are then ready for use by qualified WPacFIN participants.

DATA REPORTING SYSTEM

After all editing, adjustment, and quality control activities have been completed, monthly and annual summary reports by species are generated. Each monthly report contains a subtotal for the sum of all species for that month. Annual reports contain the total landings for each species and the total recorded landings for all species for the calendar year.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

The following species, species groups, and abbreviations are used in the tables and graphs of CNMI's data:

III.4

Note: Many of the species included in this report have been re-categorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)
Marlin
Shortbill Spearfish
Sailfish
Wahoo
Sharks

II. Bottomfish Management Unit Species (BMUS)

Jacks (unclassified, but excluding bigeye scad)
Amberjack
Bottomfish (unclassified)
Ehu (red snapper)
Gindai (flower snapper)
Grouper (unclassified)
Kalekale (pink snapper)
Lehi (silverjaw snapper)
Onaga (red or longtail snapper)
Opakapaka (pink snapper)
Uku (gray snapper)
Emperorfish

III. Billfish

Marlin (probably all blue marlin but could also include the rarely landed striped and black marlins)
Shortbill Spearfish
Sailfish

IV. Tunas

Tunas (unclassified)
Skipjack Tuna
Yellowfin Tuna

III.5

IV. Tunas (cont.)

Dogtooth Tuna

V. Other Tuna

The above tunas excluding skipjack and yellowfin tunas

VI. Fisheries Categories

A. Pelagics

All PMUS and tuna species plus the following:

Troll Fish (unclassified)

Barracuda

Rainbow Runner

B. Bottomfish

Same as BMUS

C. Reef Fish

Reef Fish (unclassified)

Giant Wrasse

Rabbitfish (hitting, hitting feda, menahac, and sesjun)

Rudderfish

Squirrelfish

Parrotfish

Snapper

Surgeonfish

Unicornfish

Goatfish

D. Other

Miscellaneous

Mullet

Milkfish

Crabs (unclassified)

Lobster

Octopus

Turtle

Bigeye Scad

Eels

Invertebrates (unclassified)

Coconut Crab

Shrimp

Squid

Seaweeds

Imported

III.6

Table III.1.1

CNMI 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	21,158	\$52,957	\$2.50
Jacks (Misc.)	4,584	\$10,066	\$2.20
Mullet	95	\$237	\$2.50
Giant Trevally	48	\$89	\$1.85
Brassy Trevally	52	\$138	\$2.66
Bottom Fish	5,718	\$15,524	\$2.72
Sickle Pomfret	344	\$676	\$1.96
Ehu (Red Snapper)	263	\$798	\$3.04
Gindai (Flower Snap)	3,157	\$9,630	\$3.05
Grouper (Misc.)	6,149	\$13,594	\$2.21
Kalikali (Yellowtail)	410	\$1,214	\$2.96
Onaga (Red Snapper)	12,655	\$42,876	\$3.39
Opakapaka (Pink Snp)	3,932	\$12,964	\$3.30
Jobfish (Uku)	389	\$908	\$2.33
Silvermouth (Deep Lehi)	3,479	\$10,102	\$2.90
Amberjack	184	\$491	\$2.66
Blueline Snapper	352	\$1,101	\$3.13
Red Snapper	29	\$73	\$2.50
Reef Fish	136,435	\$342,203	\$2.51
Wrasse	295	\$872	\$2.95
Rabbitfish	9,553	\$31,232	\$3.27
Emperor (Mafute/misc.)	5,364	\$15,577	\$2.90
Squirrelfish	1,704	\$2,878	\$1.69
Parrotfish (Misc.)	5,052	\$15,369	\$3.04
Surgeonfish (Misc.)	1,365	\$3,961	\$2.90
Orangespine Unicornfish	1,041	\$2,999	\$2.88
Unicornfish (Misc.)	1,530	\$4,477	\$2.93
Goatfish (Misc.)	1,745	\$4,406	\$2.52
Triggerfish (Misc.)	54	\$81	\$1.50
Troll Fish (Misc.)	316	\$724	\$2.29
Barracuda	59	\$162	\$2.75
Mahimahi	18,042	\$34,253	\$1.90
Blue Marlin	1,261	\$2,249	\$1.78
Sailfish	18	\$35	\$2.00
Rainbow Runner	2,093	\$3,619	\$1.73
Wahoo	8,212	\$16,255	\$1.98
Skipjack Tuna	179,966	\$357,233	\$1.99
Dogtooth Tuna	13,072	\$22,368	\$1.71
Yellowfin Tuna	30,017	\$62,608	\$2.09
Saba (Kawakawa)	3,582	\$6,120	\$1.71
Invertebrates	48	\$238	\$5.00
Spiny Lobster	4,350	\$24,837	\$5.71
Octopus	1,510	\$3,322	\$2.20
Shrimp (Saltwater)	11	\$79	\$7.00
Shrimp (Freshwater)	15	\$30	\$2.00
TOTAL	489,707	\$1,131,625	\$2.31

III.7

Table III.1.2

CNMI January 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,791	\$6,958	\$2.49
Jacks (Misc.)	617	\$1,462	\$2.37
Bottom Fish	662	\$1,711	\$2.58
Gindai (Flower Snap)	654	\$1,770	\$2.71
Grouper (Misc.)	1,779	\$3,759	\$2.11
Kalikali (Yellowtail)	42	\$105	\$2.50
Onaga (Red Snapper)	4,964	\$16,618	\$3.35
Opakapaka (Pink Snp)	1,128	\$3,374	\$2.99
Jobfish (Uku)	60	\$120	\$2.00
Silvermouth (Deep Lehi)	1,397	\$3,622	\$2.59
Blueline Snapper	125	\$438	\$3.50
Reef Fish	7,763	\$19,618	\$2.53
Rabbitfish	1,029	\$3,322	\$3.23
Emperor (Mafute/misc.)	851	\$2,654	\$3.12
Parrotfish (Misc.)	133	\$276	\$2.08
Surgeonfish (Misc.)	46	\$116	\$2.50
Orangespine Unicornfish	50	\$88	\$1.75
Unicornfish (Misc.)	35	\$86	\$2.50
Goatfish (Misc.)	4	\$13	\$3.25
Mahimahi	4,465	\$8,679	\$1.94
Rainbow Runner	89	\$179	\$2.00
Wahoo	997	\$2,287	\$2.29
Skipjack Tuna	12,592	\$27,923	\$2.22
Dogtooth Tuna	1,788	\$3,045	\$1.70
Yellowfin Tuna	5,033	\$10,784	\$2.14
Saba (Kawakawa)	724	\$1,449	\$2.00
Spiny Lobster	2	\$6	\$4.00
Octopus	104	\$253	\$2.43
Shrimp (Saltwater)	11	\$79	\$7.00
TOTAL	49,933	\$120,791	\$2.42

III.8

Table III.1.3

CNMI February 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,575	\$7,008	\$2.72
Jacks (Misc.)	611	\$1,311	\$2.15
Bottom Fish	506	\$1,300	\$2.57
Ehu (Red Snapper)	16	\$49	\$3.00
Gindai (Flower Snap)	750	\$2,280	\$3.04
Grouper (Misc.)	1,450	\$2,813	\$1.94
Onaga (Red Snapper)	2,306	\$7,557	\$3.28
Opakapaka (Pink Snp)	217	\$761	\$3.51
Jobfish (Uku)	114	\$263	\$2.31
Silvermouth (Deep Lehi)	885	\$2,550	\$2.88
Amberjack	39	\$116	\$3.00
Reef Fish	8,112	\$19,270	\$2.38
Rabbitfish	1,022	\$3,251	\$3.18
Emperor (Mafute/misc.)	323	\$1,048	\$3.24
Squirrelfish	13	\$39	\$3.13
Parrotfish (Misc.)	476	\$1,488	\$3.13
Surgeonfish (Misc.)	135	\$423	\$3.13
Orangespine Unicornfish	64	\$193	\$3.03
Unicornfish (Misc.)	189	\$525	\$2.78
Goatfish (Misc.)	46	\$141	\$3.04
Troll Fish (Misc.)	105	\$196	\$1.87
Mahimahi	5,738	\$10,959	\$1.91
Rainbow Runner	168	\$397	\$2.36
Wahoo	1,094	\$2,501	\$2.28
Skipjack Tuna	15,484	\$33,405	\$2.16
Dogtooth Tuna	2,389	\$3,989	\$1.67
Yellowfin Tuna	2,298	\$4,760	\$2.07
Saba (Kawakawa)	356	\$713	\$2.00
Spiny Lobster	18	\$82	\$4.70
Octopus	147	\$368	\$2.50
TOTAL	47,643	\$109,755	\$2.30

III.9

Table III.1.4

CNMI March 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,532	\$6,987	\$2.76
Jacks (Misc.)	1,262	\$2,643	\$2.09
Bottom Fish	471	\$1,477	\$3.14
Sickle Pomfret	19	\$38	\$2.00
Ehu (Red Snapper)	18	\$66	\$3.75
Gindai (Flower Snap)	370	\$1,214	\$3.28
Grouper (Misc.)	362	\$724	\$2.00
Onaga (Red Snapper)	1,410	\$5,144	\$3.65
Opakapaka (Pink Snp)	334	\$1,218	\$3.64
Jobfish (Uku)	67	\$168	\$2.50
Silvermouth (Deep Lehi)	378	\$1,222	\$3.23
Reef Fish	11,787	\$30,303	\$2.57
Wrasse	96	\$275	\$2.86
Rabbitfish	1,208	\$4,030	\$3.34
Emperor (Mafute/misc.)	290	\$942	\$3.25
Squirrelfish	154	\$500	\$3.25
Parrotfish (Misc.)	920	\$3,236	\$3.52
Surgeonfish (Misc.)	359	\$1,166	\$3.25
Orangespine Unicornfish	315	\$1,024	\$3.25
Unicornfish (Misc.)	339	\$1,101	\$3.25
Goatfish (Misc.)	147	\$477	\$3.25
Barracuda	59	\$162	\$2.75
Mahimahi	4,276	\$8,008	\$1.87
Rainbow Runner	121	\$230	\$1.91
Wahoo	2,961	\$5,391	\$1.82
Skipjack Tuna	15,251	\$30,082	\$1.97
Dogtooth Tuna	3,542	\$6,322	\$1.78
Yellowfin Tuna	2,323	\$4,759	\$2.05
Saba (Kawakawa)	636	\$1,234	\$1.94
Spiny Lobster	173	\$971	\$5.63
Octopus	37	\$91	\$2.50
TOTAL	52,215	\$121,204	\$2.32

III.10

Table III.1.5

CNMI April 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,958	\$6,792	\$2.30
Jacks (Misc.)	490	\$1,145	\$2.34
Mullet	62	\$155	\$2.50
Brassy Trevally	17	\$51	\$3.00
Bottom Fish	431	\$1,313	\$3.04
Sickle Pomfret	16	\$33	\$2.00
Gindai (Flower Snap)	98	\$281	\$2.88
Grouper (Misc.)	1,185	\$2,945	\$2.48
Kalikali (Yellowtail)	18	\$44	\$2.50
Onaga (Red Snapper)	1,716	\$5,634	\$3.28
Opakapaka (Pink Snp)	784	\$2,682	\$3.42
Jobfish (Uku)	19	\$56	\$3.00
Silvermouth (Deep Lehi)	96	\$330	\$3.45
Amberjack	109	\$284	\$2.59
Reef Fish	10,093	\$25,573	\$2.53
Wrasse	111	\$334	\$3.00
Rabbitfish	709	\$2,318	\$3.27
Emperor (Mafute/misc.)	992	\$2,988	\$3.01
Squirrelfish	188	\$467	\$2.49
Parrotfish (Misc.)	1,049	\$3,515	\$3.35
Surgeonfish (Misc.)	230	\$748	\$3.25
Orangespine Unicornfish	216	\$650	\$3.01
Unicornfish (Misc.)	425	\$1,253	\$2.95
Goatfish (Misc.)	776	\$1,680	\$2.17
Mahimahi	1,533	\$2,786	\$1.82
Wahoo	1,247	\$2,620	\$2.10
Skipjack Tuna	17,068	\$32,857	\$1.93
Dogtooth Tuna	1,684	\$3,134	\$1.86
Yellowfin Tuna	4,024	\$8,204	\$2.04
Spiny Lobster	670	\$4,009	\$5.98
Octopus	36	\$86	\$2.38
TOTAL	49,050	\$114,966	\$2.34

III.11

Table III.1.6

CNMI May 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,123	\$2,634	\$2.34
Jacks (Misc.)	148	\$394	\$2.67
Bottom Fish	641	\$1,603	\$2.50
Ehu (Red Snapper)	36	\$117	\$3.23
Gindai (Flower Snap)	90	\$270	\$3.00
Grouper (Misc.)	140	\$377	\$2.69
Kalikali (Yellowtail)	104	\$240	\$2.31
Onaga (Red Snapper)	542	\$2,010	\$3.71
Opakapaka (Pink Snp)	518	\$1,770	\$3.42
Jobfish (Uku)	31	\$63	\$2.00
Silvermouth (Deep Lehi)	194	\$614	\$3.17
Amberjack	18	\$35	\$2.00
Reef Fish	13,706	\$34,532	\$2.52
Wrasse	88	\$263	\$3.00
Rabbitfish	881	\$2,934	\$3.33
Emperor (Mafute/misc.)	1,708	\$4,832	\$2.83
Squirrelfish	575	\$797	\$1.39
Parrotfish (Misc.)	1,093	\$3,571	\$3.27
Surgeonfish (Misc.)	188	\$609	\$3.25
Orangespine Unicornfish	161	\$524	\$3.25
Unicornfish (Misc.)	334	\$1,023	\$3.06
Goatfish (Misc.)	91	\$297	\$3.25
Mahimahi	332	\$633	\$1.91
Blue Marlin	418	\$740	\$1.77
Rainbow Runner	120	\$244	\$2.04
Wahoo	197	\$338	\$1.72
Skipjack Tuna	16,400	\$26,723	\$1.63
Dogtooth Tuna	1,089	\$1,942	\$1.78
Yellowfin Tuna	3,222	\$7,687	\$2.39
Saba (Kawakawa)	50	\$100	\$2.00
Spiny Lobster	861	\$4,736	\$5.50
Octopus	41	\$102	\$2.50
TOTAL	45,138	\$102,754	\$2.28

III.12

Table III.1.7

CNMI June 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	1,734	\$4,210	\$2.43
Jacks (Misc.)	215	\$449	\$2.09
Bottom Fish	441	\$1,096	\$2.48
Sickle Pomfret	15	\$45	\$3.00
Ehu (Red Snapper)	38	\$103	\$2.75
Gindai (Flower Snap)	159	\$429	\$2.70
Grouper (Misc.)	347	\$694	\$2.00
Kalikali (Yellowtail)	6	\$9	\$1.50
Onaga (Red Snapper)	198	\$700	\$3.53
Opakapaka (Pink Snp)	203	\$618	\$3.04
Silvermouth (Deep Lehi)	15	\$45	\$3.00
Reef Fish	14,012	\$34,948	\$2.49
Rabbitfish	613	\$1,869	\$3.05
Emperor (Mafute/misc.)	68	\$200	\$2.96
Squirrelfish	79	\$159	\$2.00
Parrotfish (Misc.)	525	\$1,315	\$2.50
Orangespine Unicornfish	88	\$175	\$2.00
Unicornfish (Misc.)	15	\$43	\$2.88
Mahimahi	180	\$313	\$1.74
Blue Marlin	109	\$209	\$1.92
Sailfish	18	\$35	\$2.00
Rainbow Runner	228	\$457	\$2.00
Wahoo	17	\$34	\$2.00
Skipjack Tuna	14,168	\$26,553	\$1.87
Dogtooth Tuna	958	\$1,121	\$1.17
Yellowfin Tuna	2,829	\$5,833	\$2.06
Saba (Kawakawa)	88	\$175	\$2.00
Spiny Lobster	965	\$5,595	\$5.80
Octopus	174	\$367	\$2.11
TOTAL	38,504	\$87,799	\$2.28

III.13

Table III.1.8

CNMI July 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	618	\$1,543	\$2.50
Jacks (Misc.)	119	\$179	\$1.50
Bottom Fish	321	\$961	\$2.99
Gindai (Flower Snap)	59	\$162	\$2.75
Onaga (Red Snapper)	398	\$1,393	\$3.50
Opakapaka (Pink Snp)	125	\$438	\$3.50
Jobfish (Uku)	19	\$58	\$3.00
Silvermouth (Deep Lehi)	190	\$650	\$3.41
Amberjack	19	\$56	\$3.00
Blueline Snapper	119	\$328	\$2.75
Reef Fish	9,530	\$24,349	\$2.56
Rabbitfish	347	\$1,131	\$3.25
Emperor (Mafute/misc.)	61	\$102	\$1.68
Squirrelfish	93	\$181	\$1.94
Parrotfish (Misc.)	155	\$350	\$2.26
Surgeonfish (Misc.)	334	\$736	\$2.20
Orangespine Unicornfish	46	\$106	\$2.29
Unicornfish (Misc.)	23	\$60	\$2.57
Goatfish (Misc.)	35	\$88	\$2.51
Mahimahi	130	\$260	\$2.00
Blue Marlin	200	\$300	\$1.50
Rainbow Runner	341	\$554	\$1.63
Skipjack Tuna	14,394	\$26,992	\$1.88
Dogtooth Tuna	407	\$561	\$1.38
Yellowfin Tuna	2,580	\$4,328	\$1.68
Invertebrates	48	\$238	\$5.00
Spiny Lobster	224	\$1,352	\$6.04
Octopus	94	\$215	\$2.29
TOTAL	31,031	\$67,673	\$2.18

III.14

Table III.1.9

CNMI August 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	435	\$995	\$2.29
Jacks (Misc.)	89	\$199	\$2.23
Bottom Fish	314	\$779	\$2.48
Sickle Pomfret	182	\$364	\$2.00
Gindai (Flower Snap)	63	\$219	\$3.50
Onaga (Red Snapper)	240	\$838	\$3.50
Opakapaka (Pink Snp)	336	\$1,177	\$3.50
Jobfish (Uku)	35	\$88	\$2.50
Silvermouth (Deep Lehi)	45	\$151	\$3.35
Red Snapper	29	\$73	\$2.50
Reef Fish	13,935	\$32,900	\$2.36
Rabbitfish	670	\$2,126	\$3.17
Emperor (Mafute/misc.)	214	\$567	\$2.65
Squirrelfish	298	\$402	\$1.35
Parrotfish (Misc.)	163	\$293	\$1.80
Unicornfish (Misc.)	87	\$197	\$2.27
Goatfish (Misc.)	90	\$180	\$1.99
Mahimahi	188	\$375	\$2.00
Blue Marlin	260	\$425	\$1.64
Rainbow Runner	212	\$377	\$1.78
Wahoo	141	\$305	\$2.16
Skipjack Tuna	14,967	\$28,381	\$1.90
Dogtooth Tuna	258	\$432	\$1.68
Yellowfin Tuna	762	\$1,544	\$2.02
Saba (Kawakawa)	100	\$184	\$1.84
Spiny Lobster	284	\$1,578	\$5.56
Octopus	188	\$397	\$2.11
TOTAL	34,584	\$75,544	\$2.18

III.15

Table III.1.10

CNMI September 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,146	\$5,704	\$2.66
Jacks (Misc.)	192	\$480	\$2.49
Brassy Trevally	35	\$88	\$2.50
Bottom Fish	1,013	\$3,005	\$2.97
Sickle Pomfret	44	\$88	\$2.00
Ehu (Red Snapper)	90	\$268	\$2.97
Gindai (Flower Snap)	194	\$650	\$3.35
Grouper (Misc.)	179	\$492	\$2.75
Kalikali (Yellowtail)	10	\$25	\$2.50
Onaga (Red Snapper)	271	\$950	\$3.50
Jobfish (Uku)	16	\$33	\$2.00
Silvermouth (Deep Lehi)	68	\$203	\$3.00
Reef Fish	14,007	\$35,023	\$2.50
Rabbitfish	436	\$1,433	\$3.29
Emperor (Mafute/misc.)	343	\$853	\$2.49
Parrotfish (Misc.)	51	\$62	\$1.22
Surgeonfish (Misc.)	50	\$113	\$2.25
Orangespine Unicornfish	70	\$165	\$2.35
Unicornfish (Misc.)	84	\$189	\$2.26
Goatfish (Misc.)	250	\$713	\$2.85
Mahimahi	178	\$355	\$2.00
Rainbow Runner	237	\$424	\$1.79
Wahoo	50	\$100	\$2.00
Skipjack Tuna	13,653	\$27,191	\$1.99
Dogtooth Tuna	18	\$35	\$2.00
Yellowfin Tuna	1,006	\$2,032	\$2.02
Saba (Kawakawa)	1,153	\$1,448	\$1.26
Spiny Lobster	448	\$2,313	\$5.17
Octopus	238	\$500	\$2.10
TOTAL	36,527	\$84,932	\$2.33

III.16

Table III.1.11

CNMI October 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	2,792	\$6,448	\$2.31
Jacks (Misc.)	20	\$42	\$2.13
Mullet	15	\$38	\$2.50
Bottom Fish	366	\$924	\$2.53
Sickle Pomfret	56	\$84	\$1.51
Ehu (Red Snapper)	65	\$195	\$3.00
Gindai (Flower Snap)	185	\$611	\$3.30
Grouper (Misc.)	91	\$205	\$2.25
Kalikali (Yellowtail)	13	\$31	\$2.50
Onaga (Red Snapper)	84	\$312	\$3.73
Opakapaka (Pink Snp)	63	\$156	\$2.50
Blueline Snapper	69	\$239	\$3.45
Reef Fish	11,504	\$28,626	\$2.49
Rabbitfish	735	\$2,388	\$3.25
Emperor (Mafute/misc.)	234	\$694	\$2.96
Squirrelfish	256	\$292	\$1.14
Parrotfish (Misc.)	474	\$1,249	\$2.63
Surgeonfish (Misc.)	6	\$9	\$1.50
Orangespine Unicornfish	26	\$64	\$2.50
Goatfish (Misc.)	186	\$541	\$2.90
Mahimahi	262	\$518	\$1.98
Blue Marlin	225	\$450	\$2.00
Rainbow Runner	25	\$50	\$2.00
Wahoo	86	\$142	\$1.64
Skipjack Tuna	15,820	\$32,427	\$2.05
Dogtooth Tuna	363	\$634	\$1.75
Yellowfin Tuna	457	\$1,089	\$2.38
Saba (Kawakawa)	93	\$69	\$0.74
Spiny Lobster	590	\$3,503	\$5.94
Octopus	85	\$180	\$2.13
TOTAL	35,243	\$82,210	\$2.33

III.17

Table III.1.12

CNMI November 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	938	\$2,204	\$2.35
Jacks (Misc.)	291	\$576	\$1.98
Bottom Fish	488	\$1,194	\$2.45
Sickle Pomfret	13	\$26	\$2.00
Gindai (Flower Snap)	30	\$75	\$2.50
Grouper (Misc.)	616	\$1,587	\$2.57
Onaga (Red Snapper)	181	\$621	\$3.43
Opakapaka (Pink Snp)	217	\$753	\$3.47
Blueline Snapper	38	\$96	\$2.50
Reef Fish	10,260	\$26,493	\$2.58
Rabbitfish	1,129	\$3,815	\$3.38
Emperor (Mafute/misc.)	270	\$669	\$2.48
Squirrelfish	49	\$41	\$0.84
Parrotfish (Misc.)	14	\$14	\$1.00
Orangespine Unicornfish	5	\$10	\$2.00
Triggerfish (Misc.)	54	\$81	\$1.50
Troll Fish (Misc.)	211	\$528	\$2.50
Mahimahi	422	\$742	\$1.76
Blue Marlin	50	\$125	\$2.50
Rainbow Runner	278	\$311	\$1.12
Wahoo	1,081	\$2,060	\$1.91
Skipjack Tuna	14,544	\$31,267	\$2.15
Dogtooth Tuna	156	\$273	\$1.75
Yellowfin Tuna	1,425	\$2,687	\$1.89
Saba (Kawakawa)	283	\$549	\$1.94
Spiny Lobster	60	\$350	\$5.83
Octopus	144	\$296	\$2.06
TOTAL	33,247	\$77,442	\$2.33

III.18

Table III.1.13

CNMI December 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad	515	\$1,475	\$2.86
Jacks (Misc.)	530	\$1,187	\$2.24
Mullet	18	\$44	\$2.50
Giant Trevally	48	\$89	\$1.85
Bottom Fish	64	\$159	\$2.50
Gindai (Flower Snap)	506	\$1,669	\$3.30
Kalikali (Yellowtail)	218	\$760	\$3.48
Onaga (Red Snapper)	346	\$1,097	\$3.17
Opakapaka (Pink Snp)	7	\$17	\$2.50
Jobfish (Uku)	28	\$60	\$2.15
Silvermouth (Deep Lehi)	212	\$716	\$3.38
Reef Fish	11,726	\$30,567	\$2.61
Rabbitfish	774	\$2,617	\$3.38
Emperor (Mafute/misc.)	12	\$30	\$2.50
Surgeonfish (Misc.)	17	\$42	\$2.50
Goatfish (Misc.)	119	\$276	\$2.33
Mahimahi	339	\$624	\$1.84
Rainbow Runner	275	\$396	\$1.44
Wahoo	340	\$479	\$1.41
Skipjack Tuna	15,625	\$33,434	\$2.14
Dogtooth Tuna	421	\$878	\$2.09
Yellowfin Tuna	4,058	\$8,901	\$2.19
Saba (Kawakawa)	100	\$200	\$2.00
Spiny Lobster	58	\$343	\$5.96
Octopus	223	\$466	\$2.09
Shrimp (Freshwater)	15	\$30	\$2.00
TOTAL	36,593	\$86,555	\$2.37

Figure III.1.1

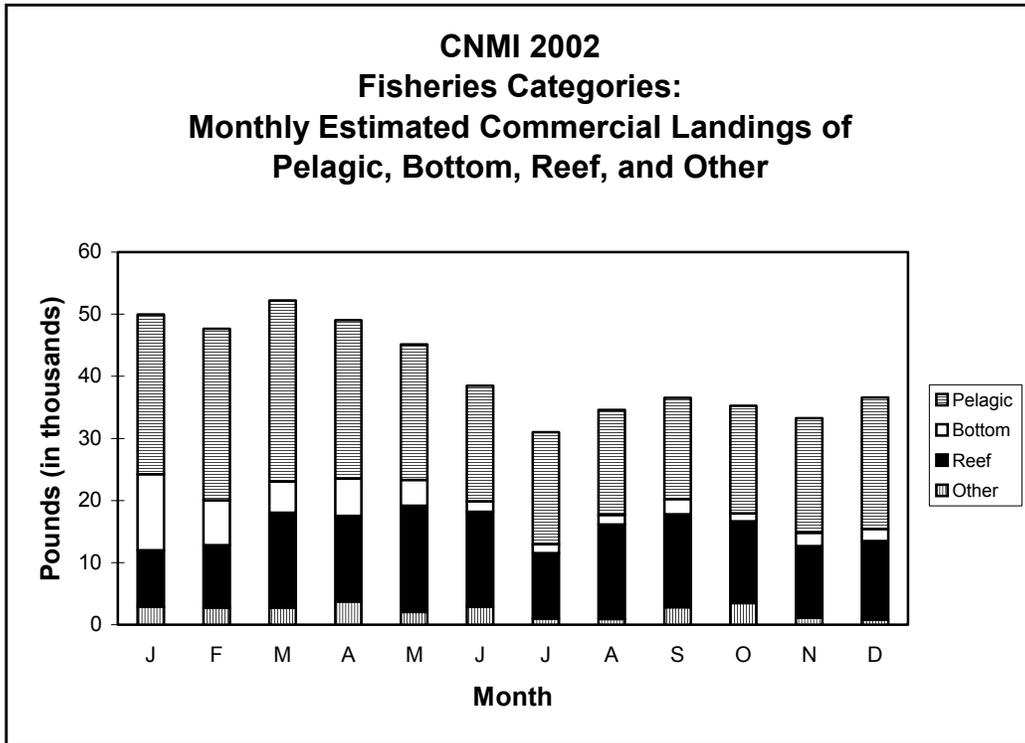


Figure III.1.2

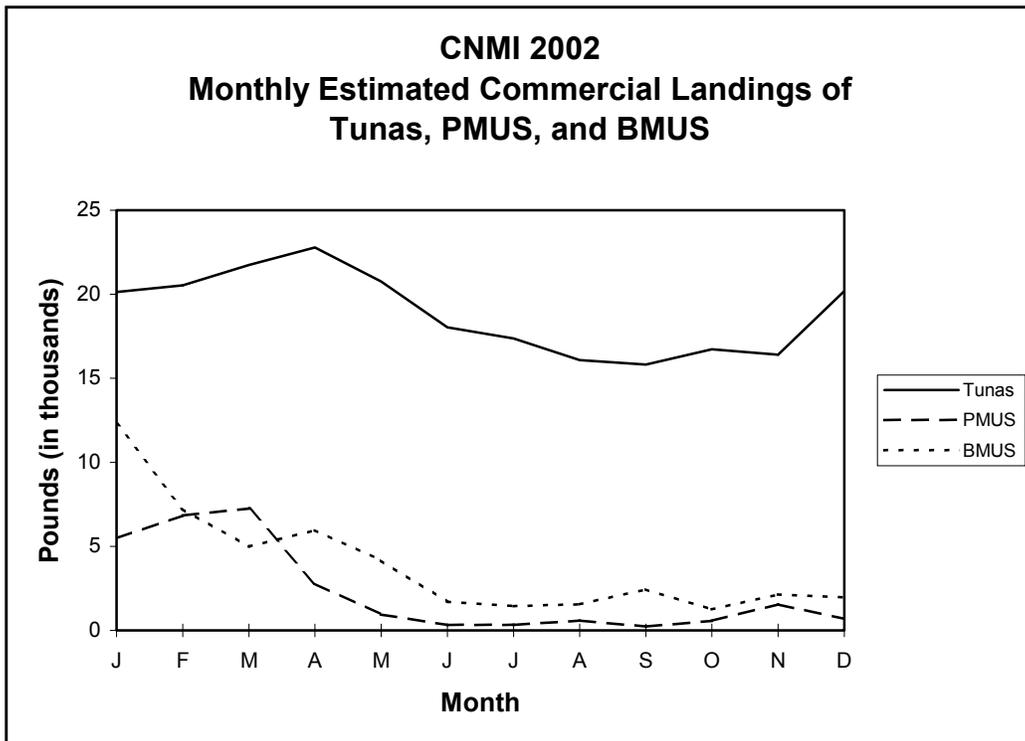


Figure III.1.3

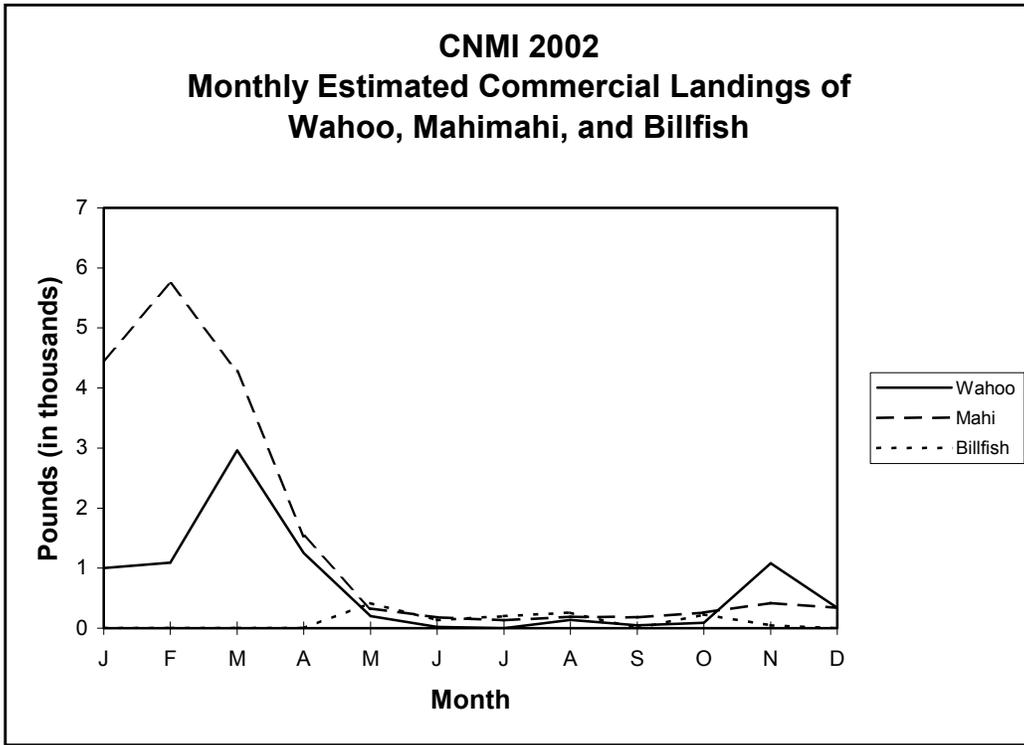


Figure III.1.4

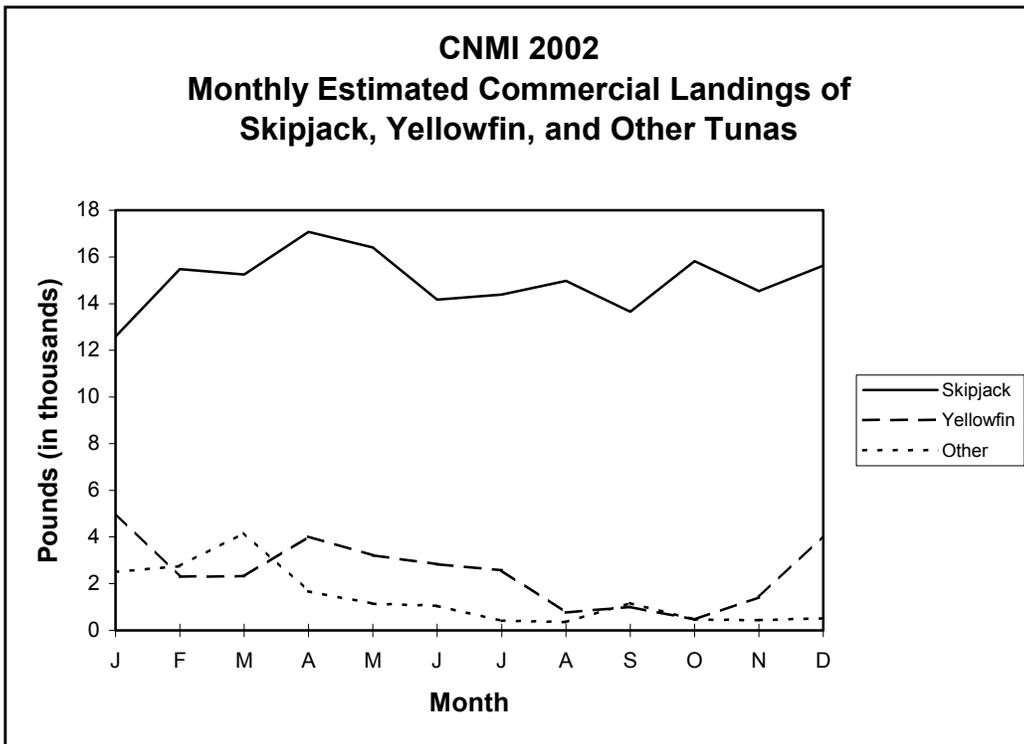


Figure III.1.5

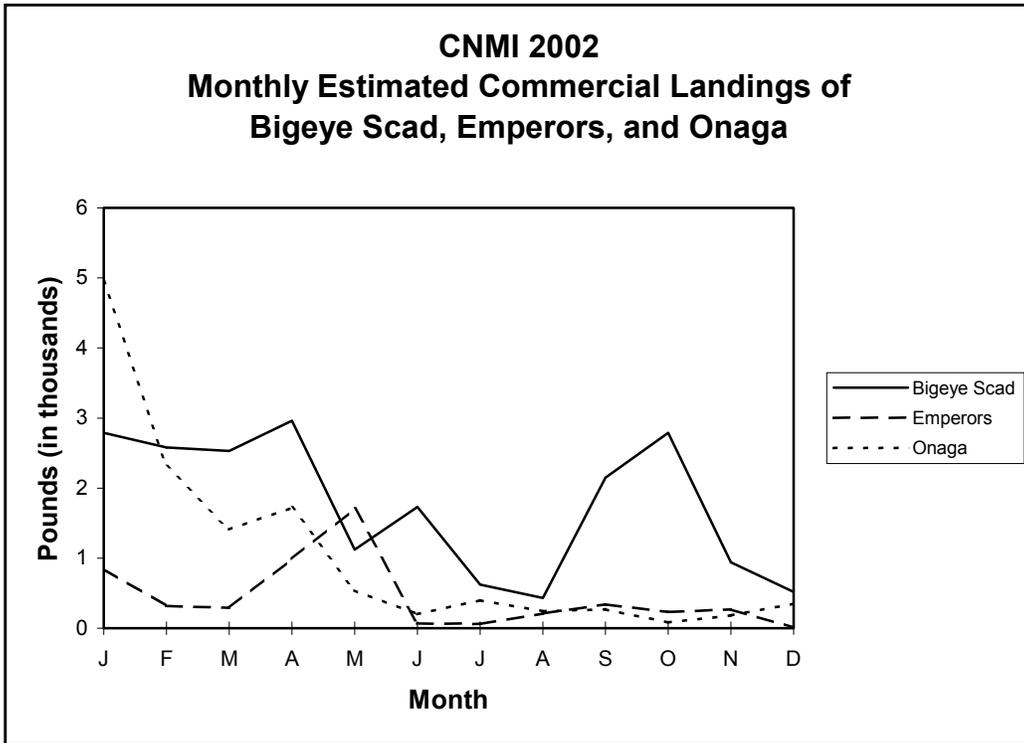


Figure III.2.1

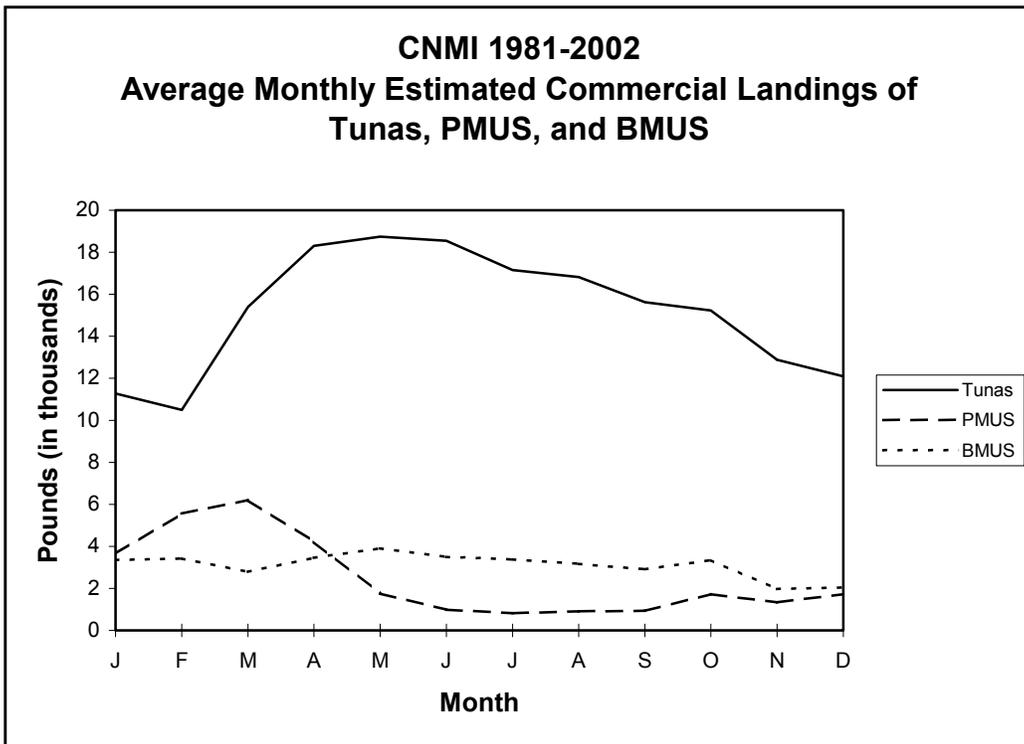


Figure III.2.2

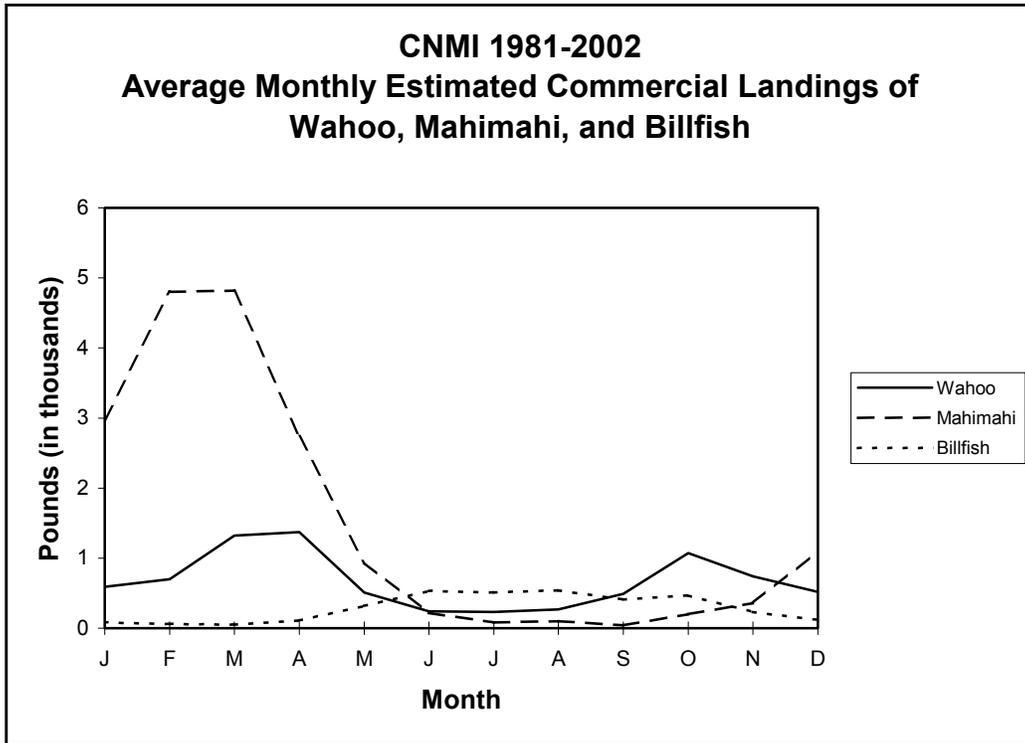


Figure III.2.3

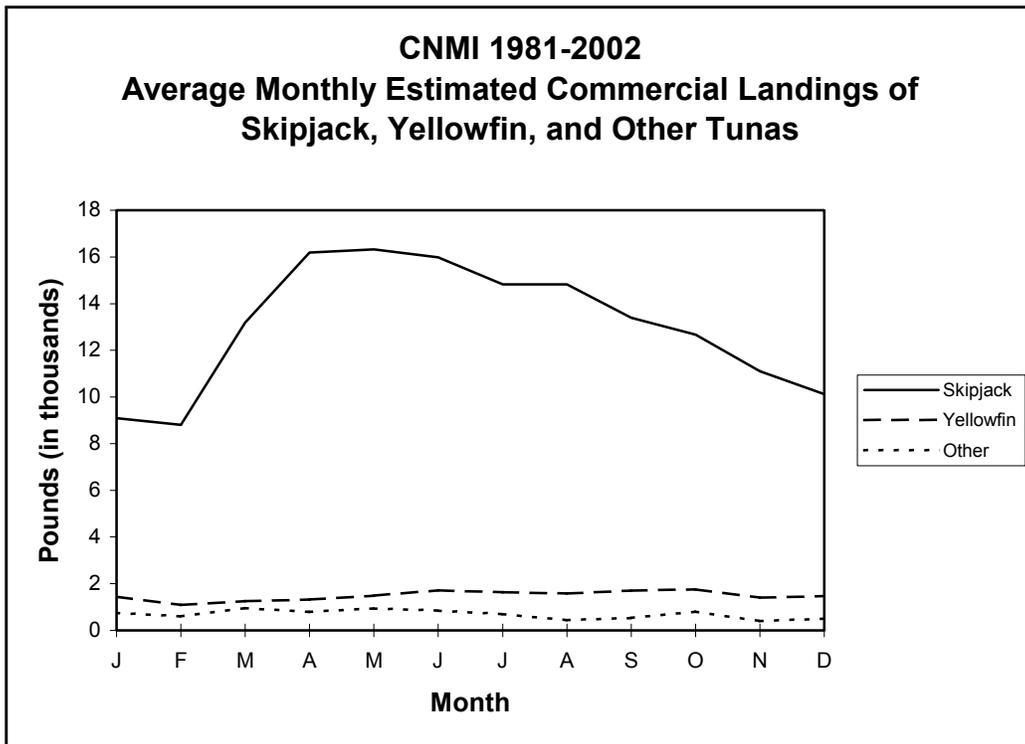


Figure III.2.4

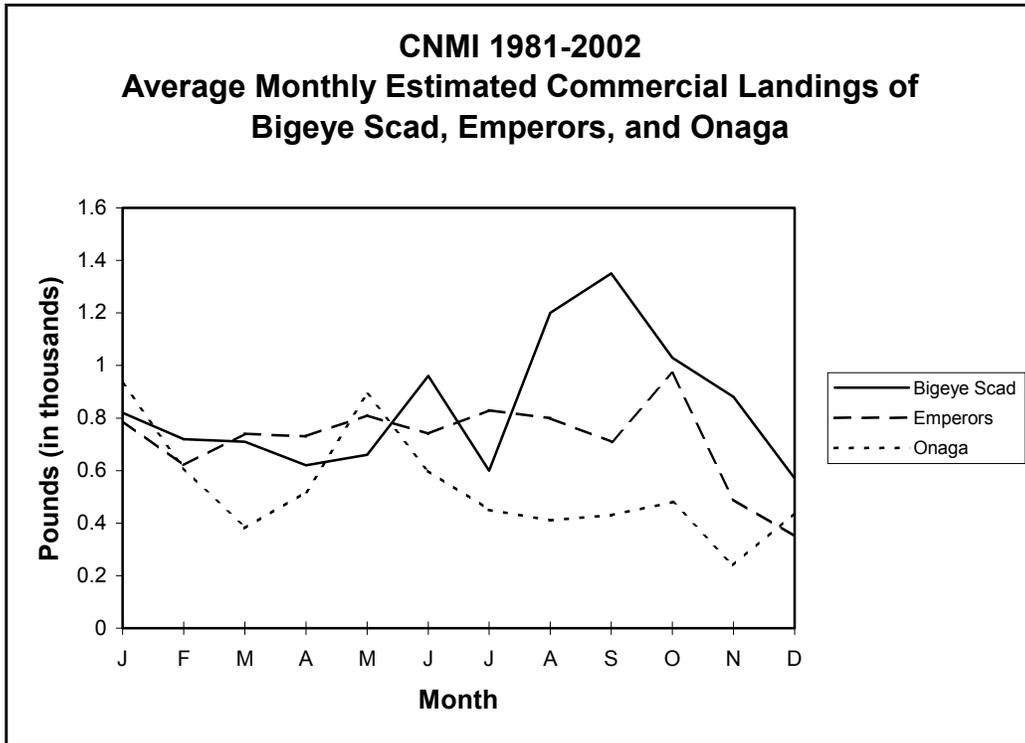


Figure III.2.5

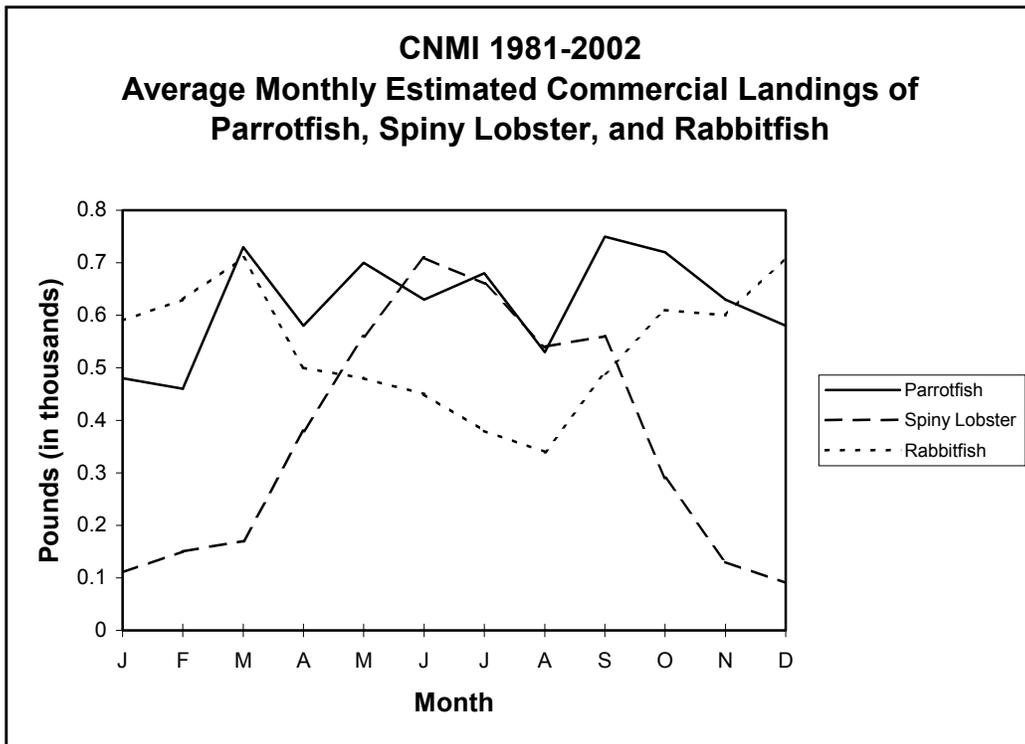


Figure III.3.1

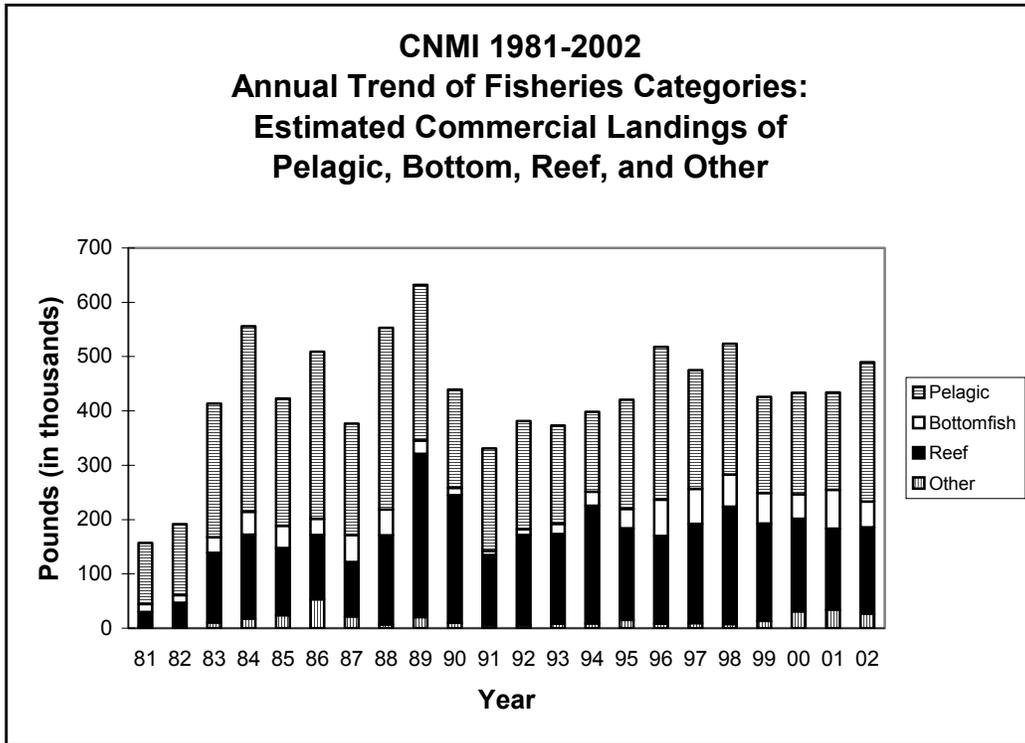


Figure III.3.2

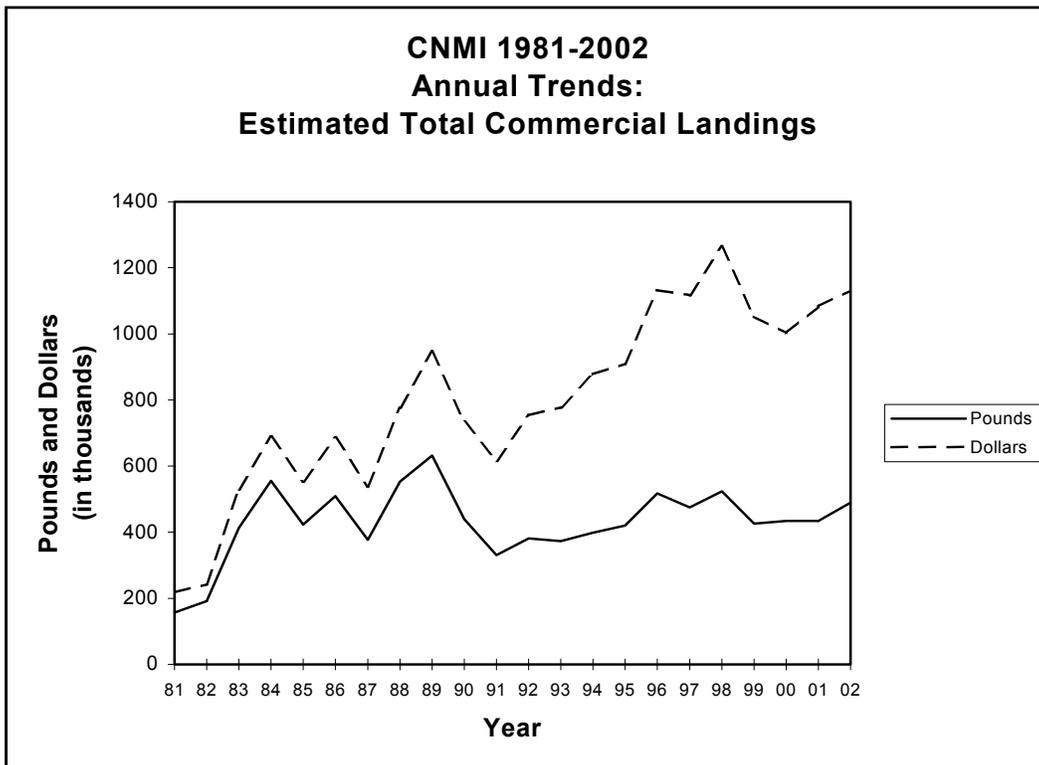


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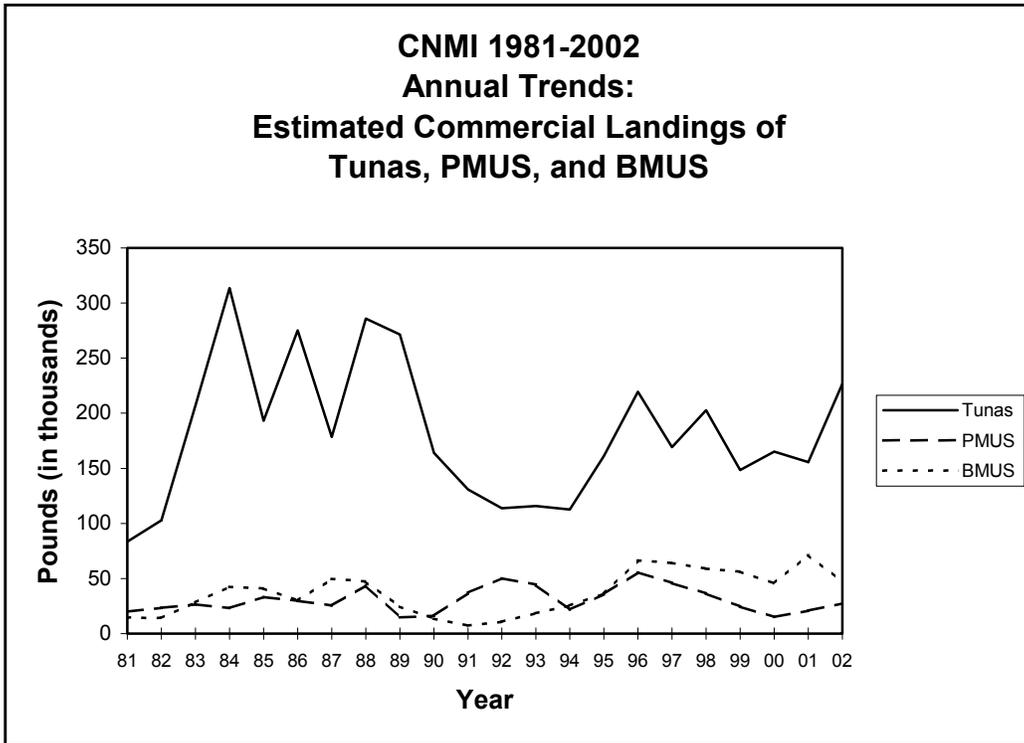


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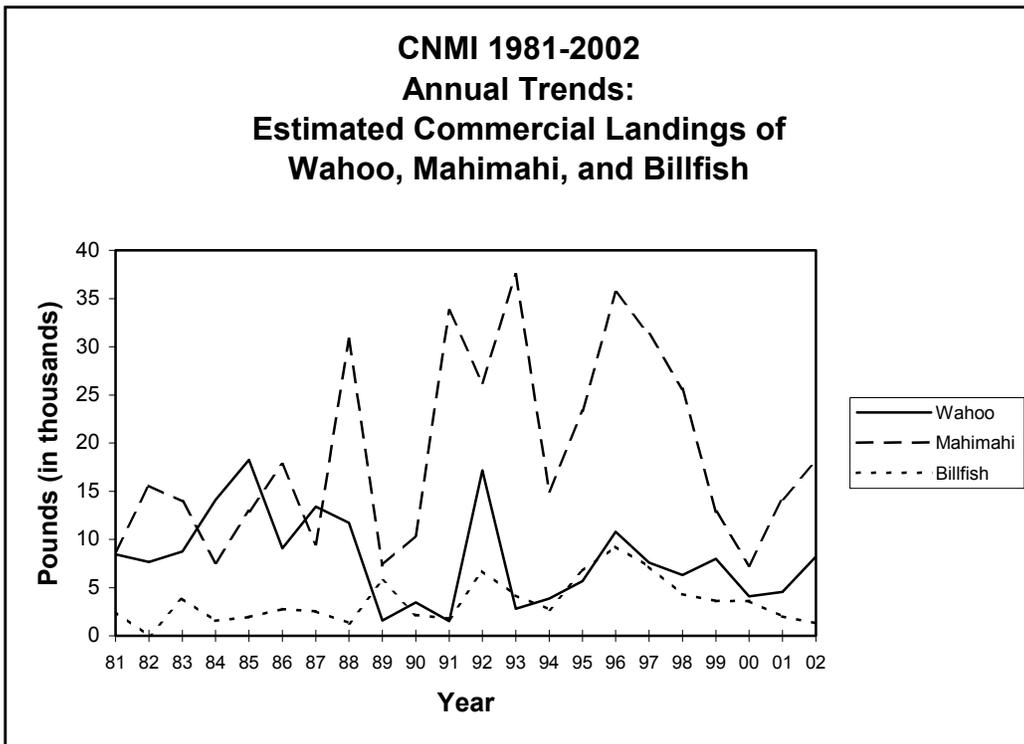


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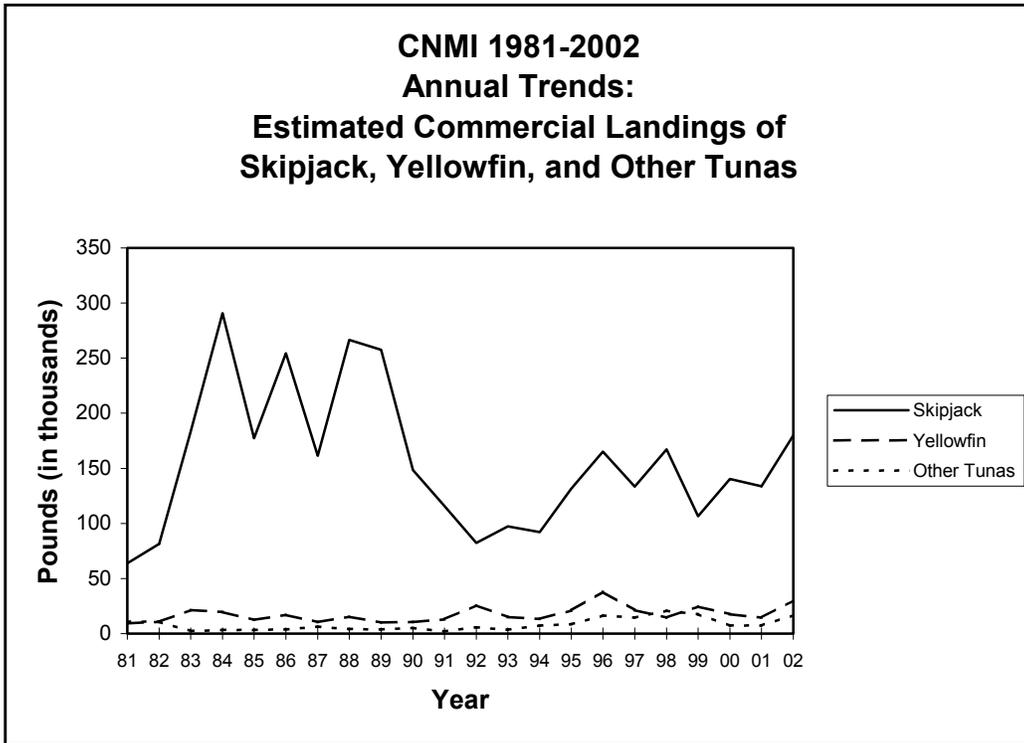


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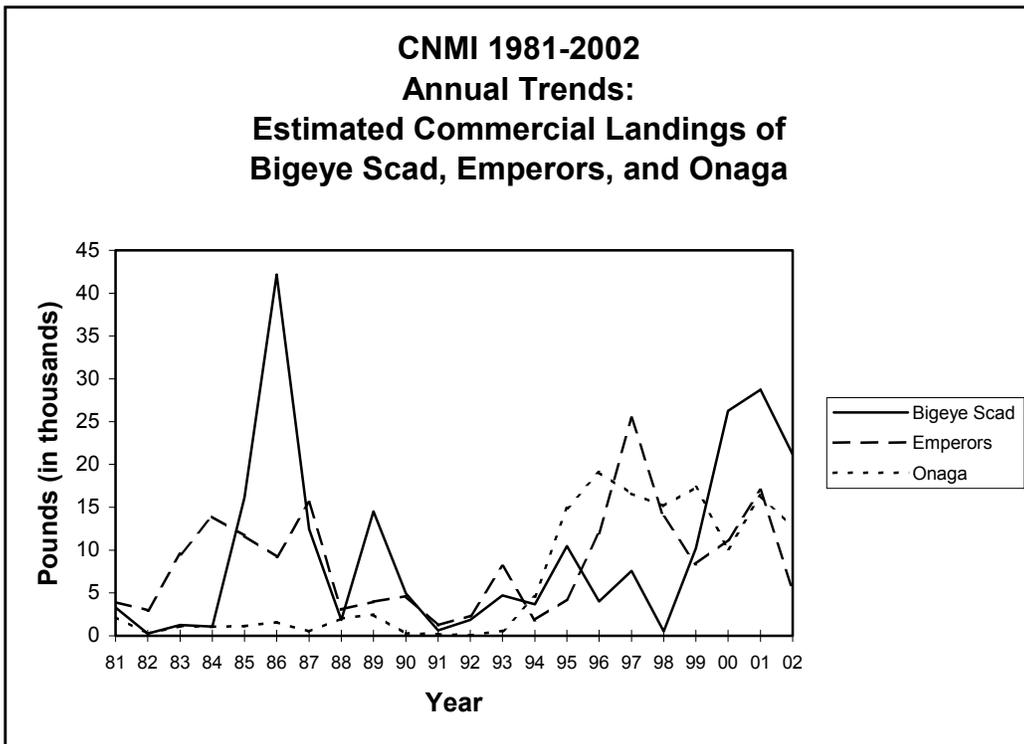


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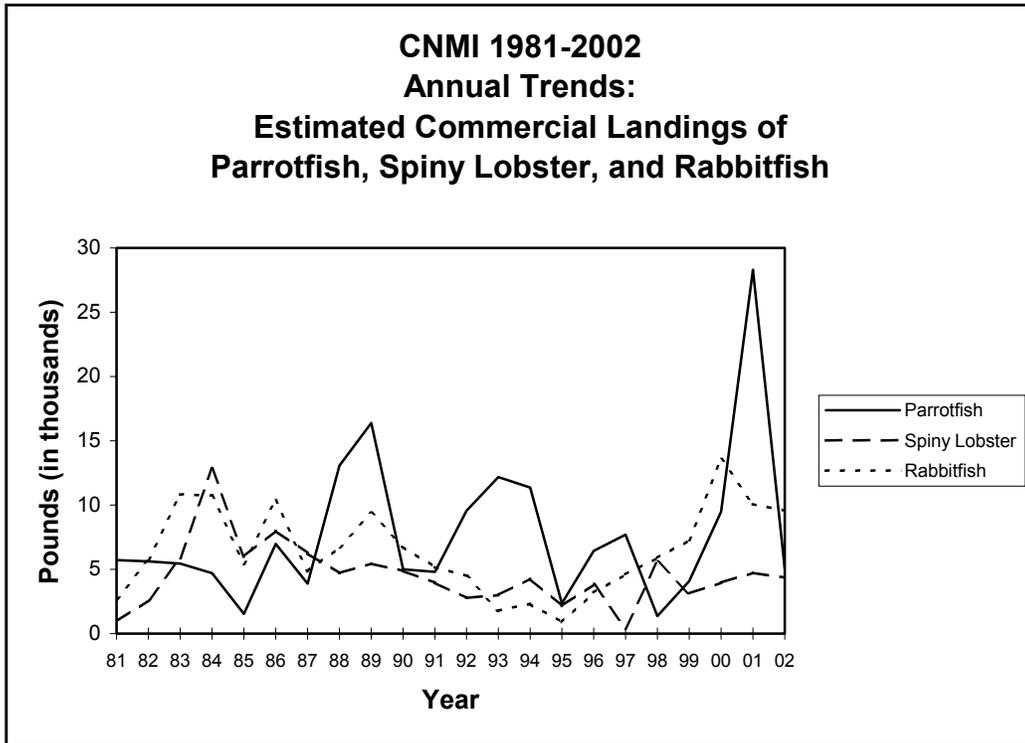


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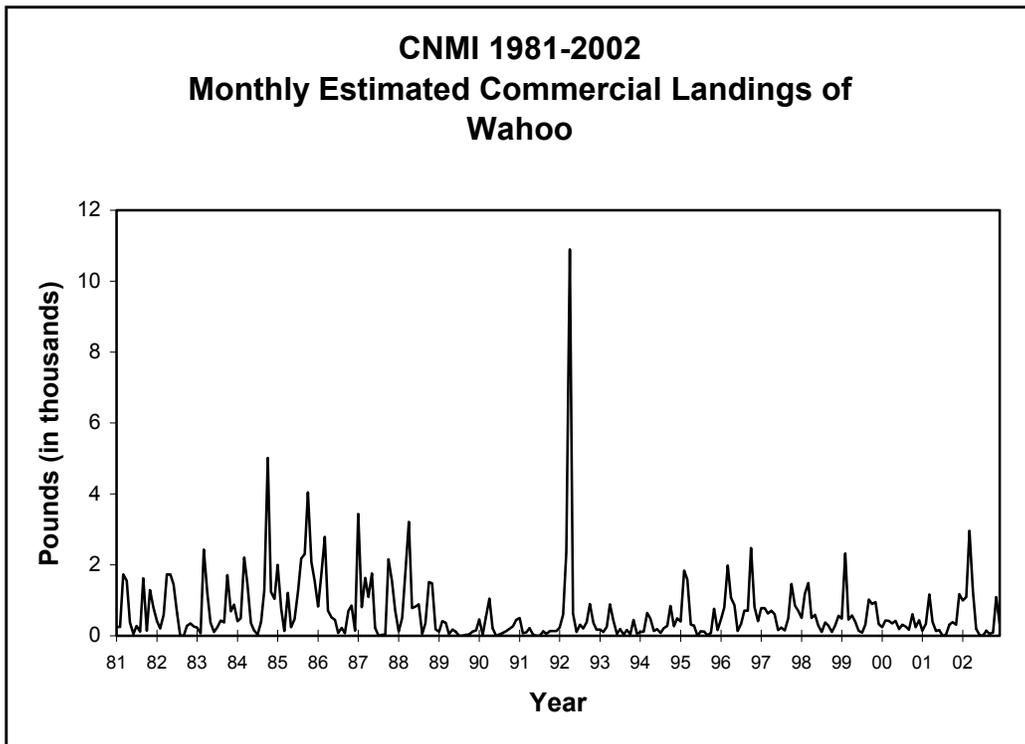


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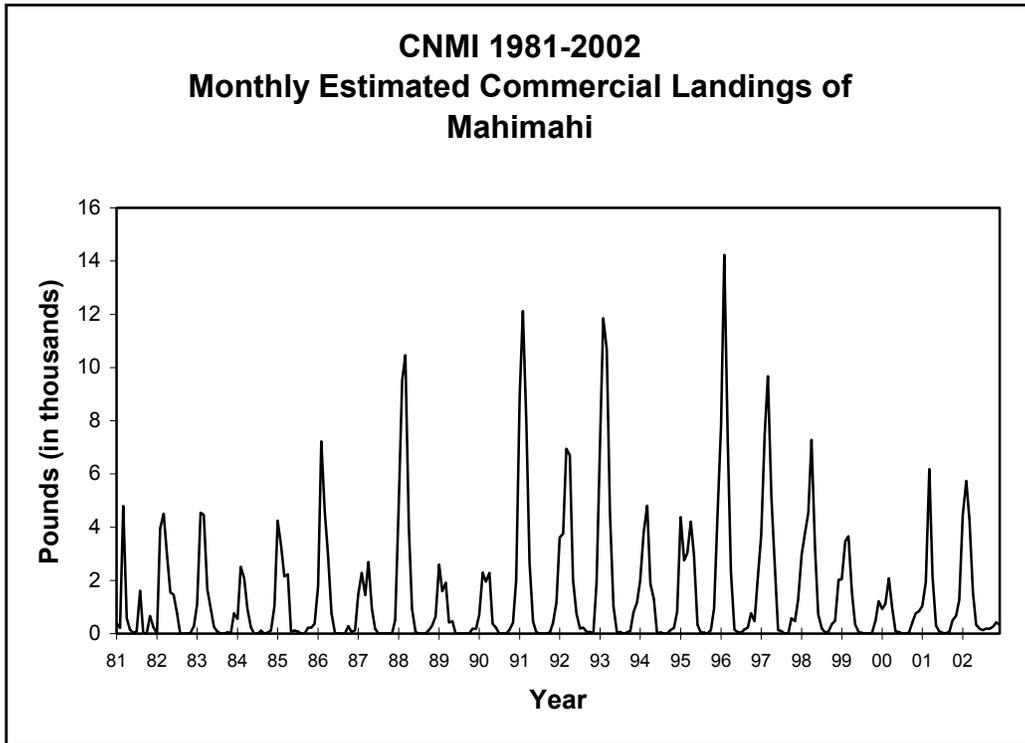


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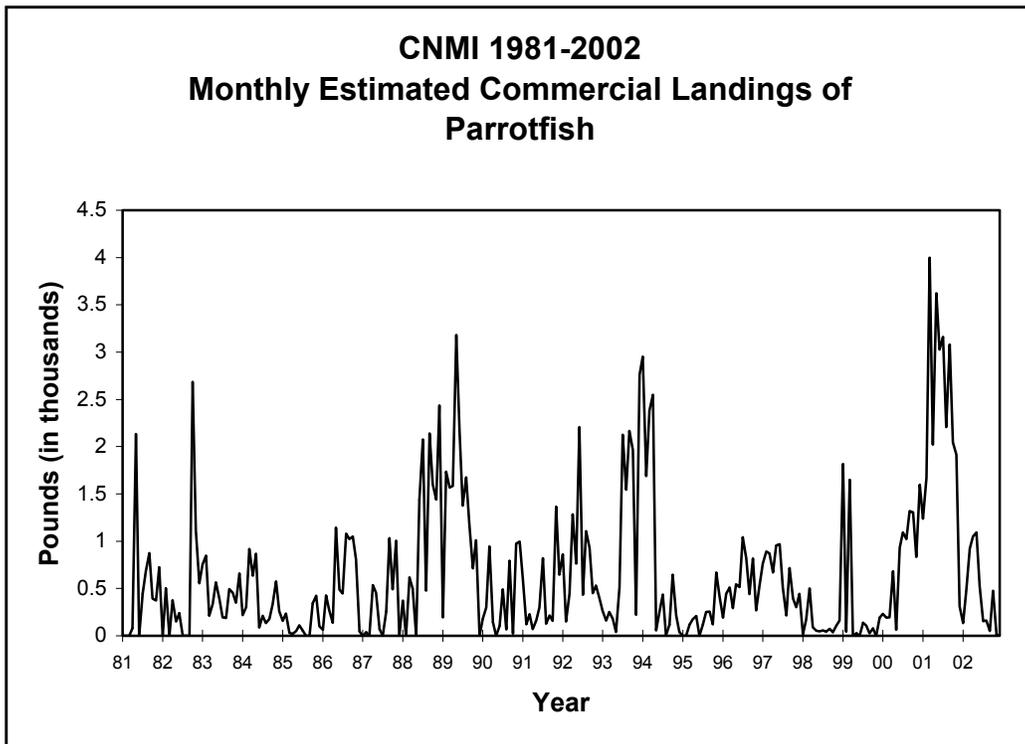


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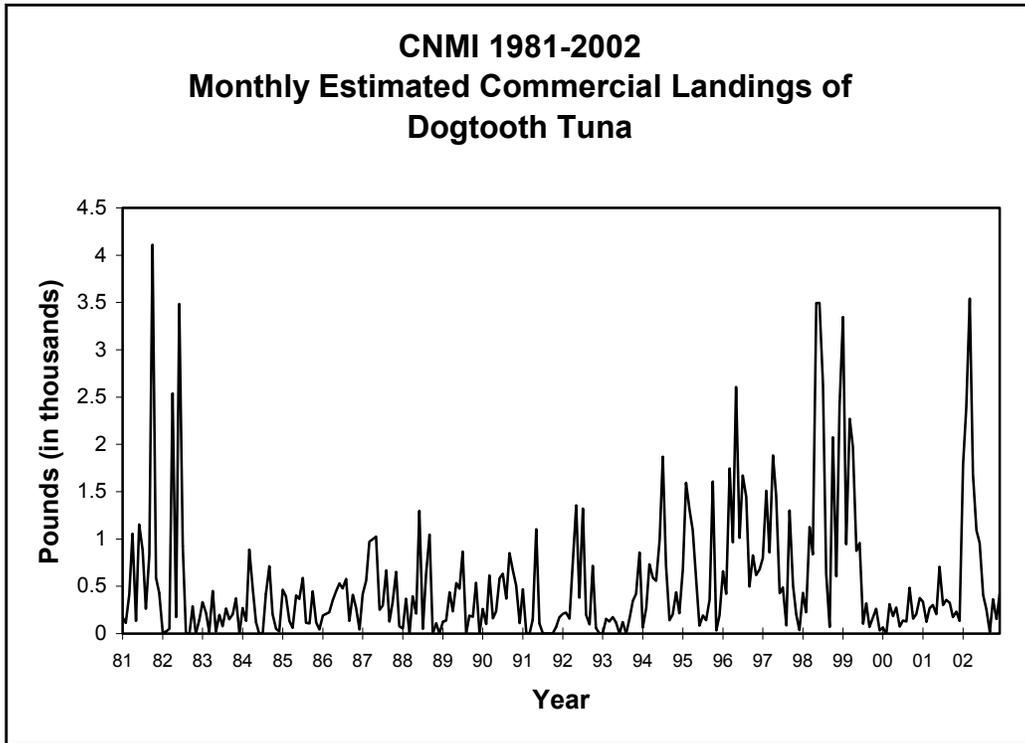


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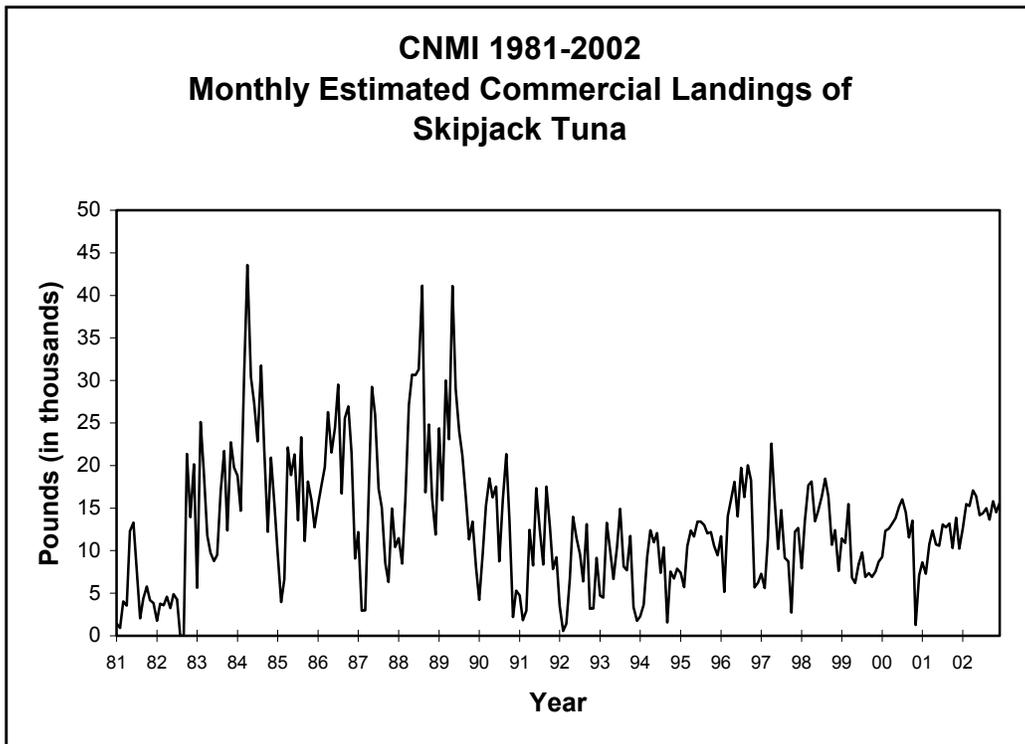


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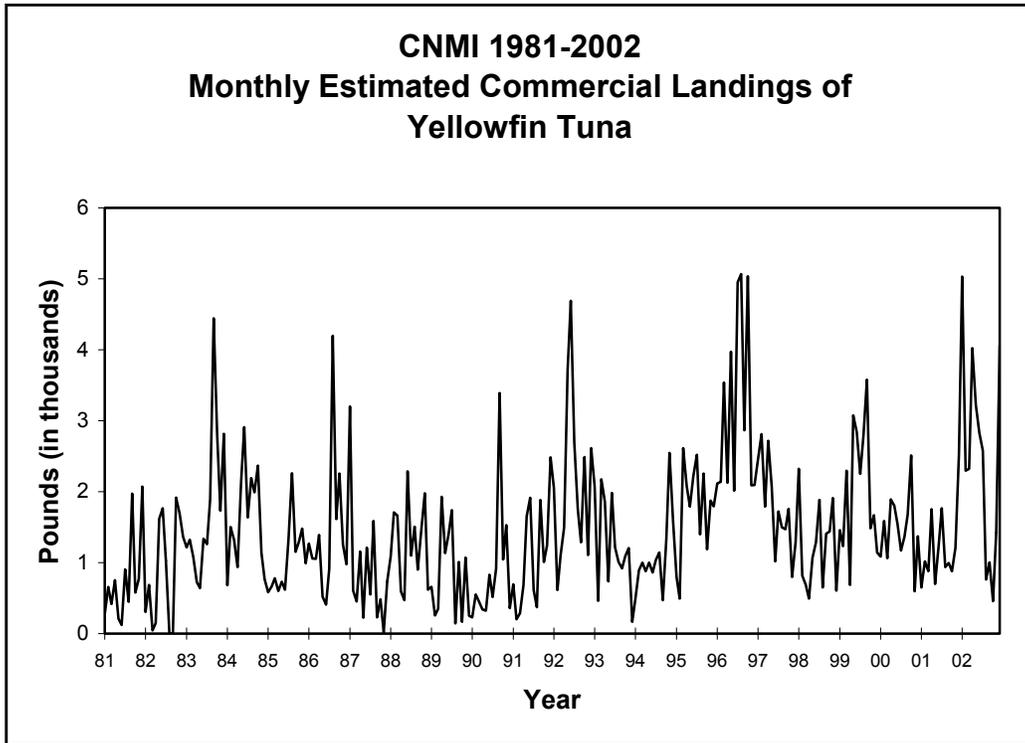


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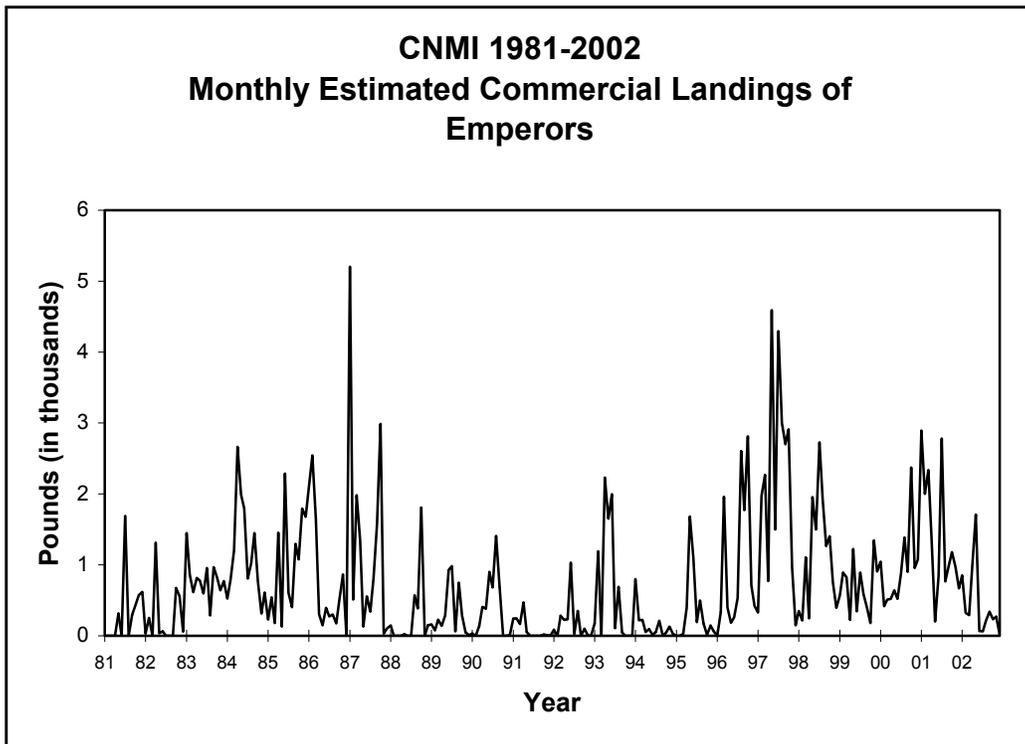


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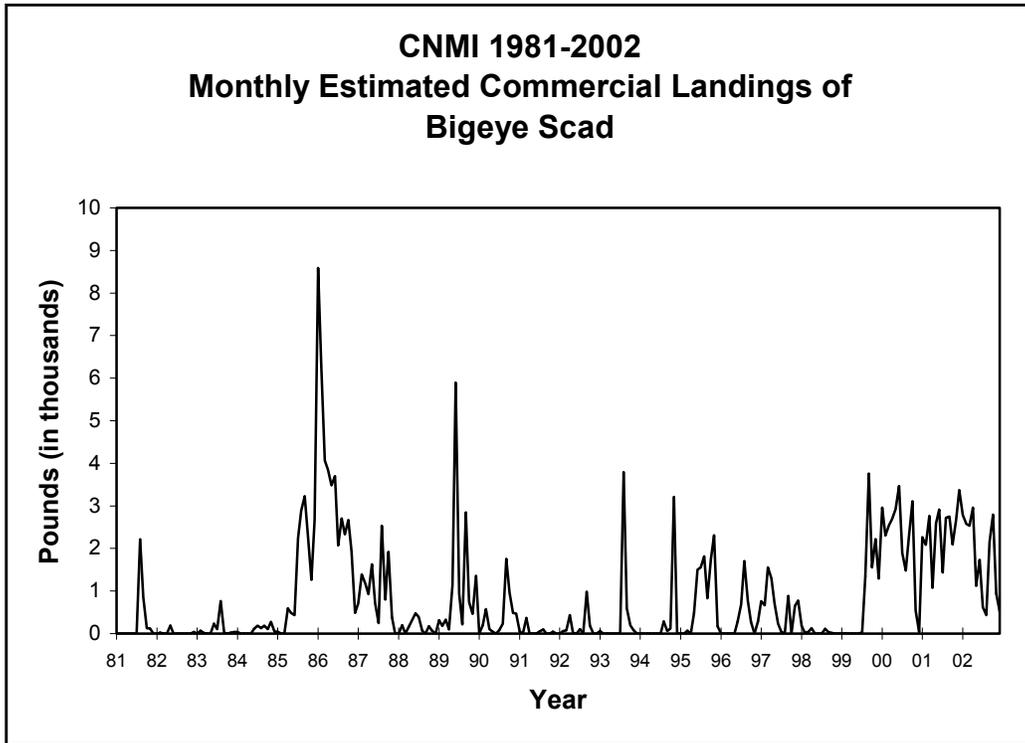


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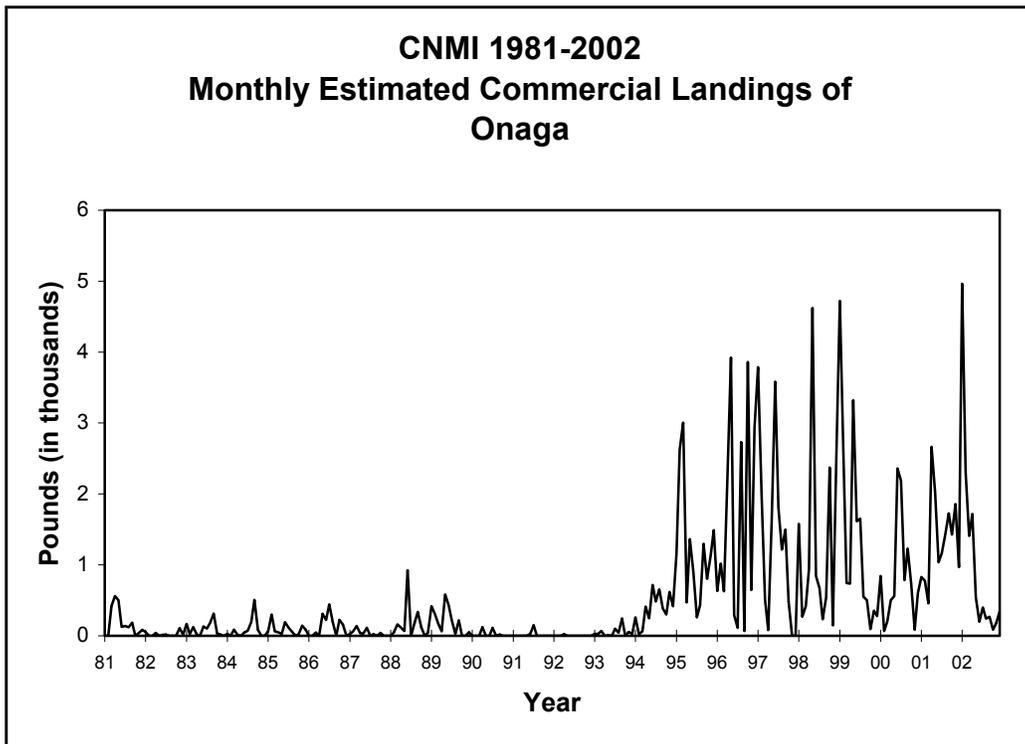


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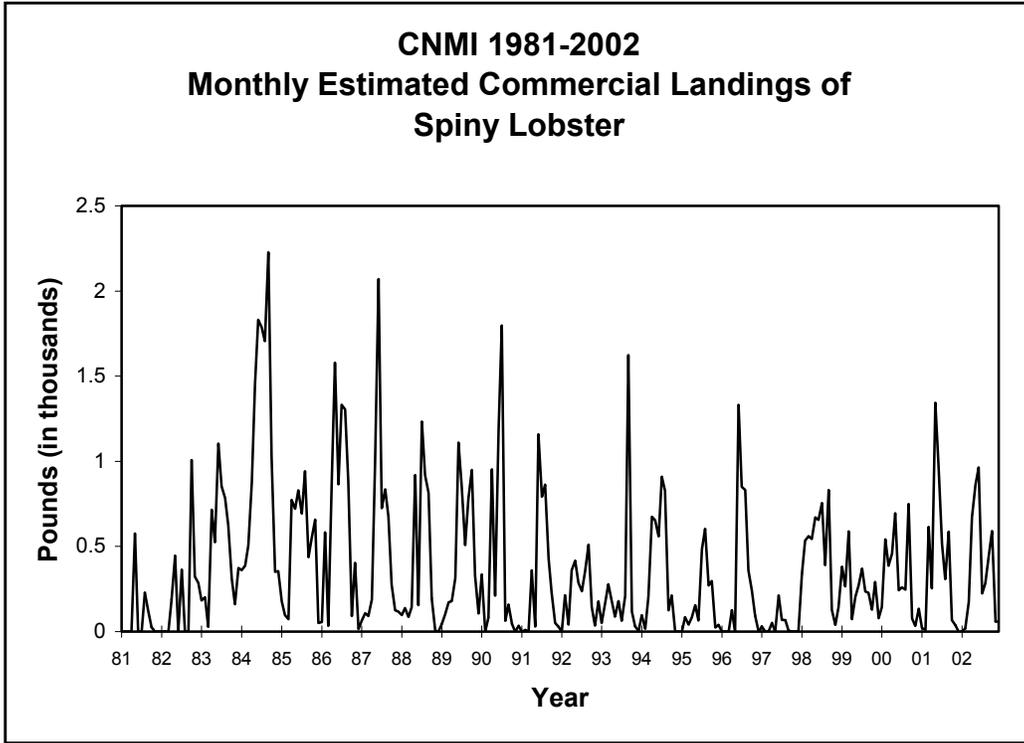
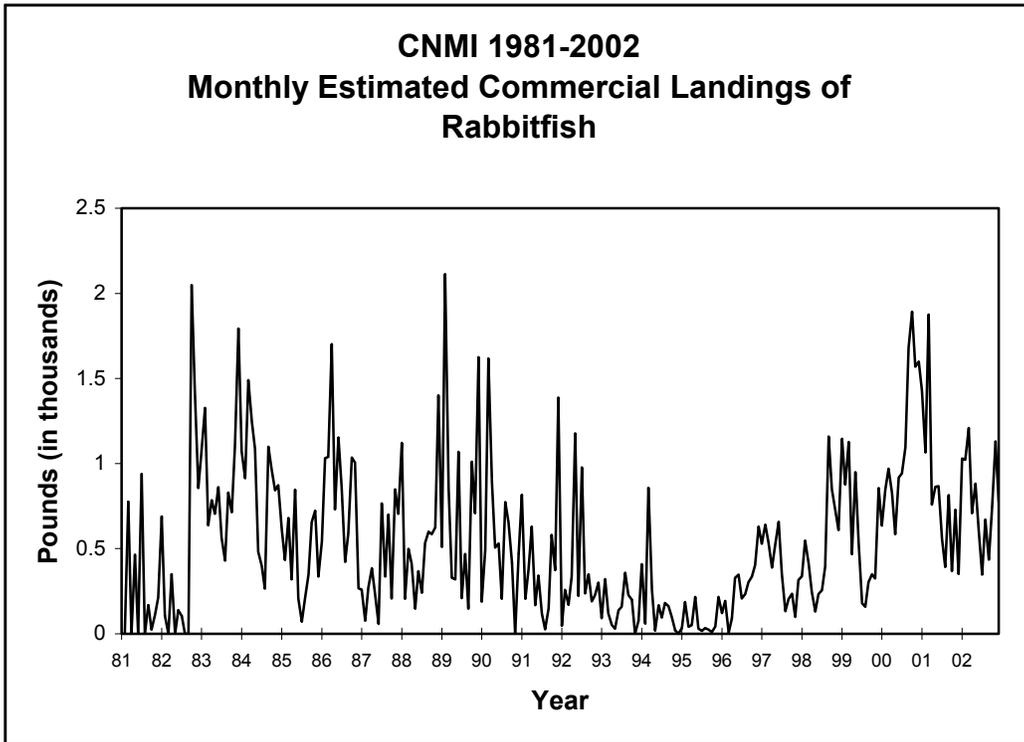


Figure III.4.11



GUAM 2002 FISHERY STATISTICS

Compiled by
Guam Division of Aquatic and Wildlife Resources
and the
Western Pacific Fishery Information Network

June 2004

CONTENTS

	Page
Introduction	IV.1
Commercial Landings Data Collection System	IV.2
Commercial Landings Data Processing System	IV.3
Commercial Landings Data Reporting System	IV.3
Interpretation of Statistics	IV.5
Tables and Figures	IV.6

LIST OF GUAM SUMMARY TABLES

Table	Title	Page
IV.1.1	Guam 2002 Estimated Commercial Landings	IV.6
IV.1.2	Guam January 2002 Estimated Commercial Landings	IV.7
IV.1.3	Guam February 2002 Estimated Commercial Landings	IV.8
IV.1.4	Guam March 2002 Estimated Commercial Landings	IV.9
IV.1.5	Guam April 2002 Estimated Commercial Landings	IV.10
IV.1.6	Guam May 2002 Estimated Commercial Landings	IV.11
IV.1.7	Guam June 2002 Estimated Commercial Landings	IV.12
IV.1.8	Guam July 2002 Estimated Commercial Landings	IV.13
IV.1.9	Guam August 2002 Estimated Commercial Landings	IV.14
IV.1.10	Guam September 2002 Estimated Commercial Landings	IV.15
IV.1.11	Guam October 2002 Estimated Commercial Landings	IV.16
IV.1.12	Guam November 2002 Estimated Commercial Landings	IV.17
IV.1.13	Guam December 2002 Estimated Commercial Landings	IV.18

LIST OF GUAM FIGURES

Figure	Title	Page
IV.1.1	Guam 2002 Fisheries Categories: Monthly Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	IV.19
IV.1.2	Guam 2002 Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	IV.19
IV.1.3	Guam 2002 Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	IV.20
IV.1.4	Guam 2002 Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.20
IV.1.5	Guam 2002 Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	IV.21
IV.2.1	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Tunas, PMUS, and BMUS	IV.21
IV.2.2	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Wahoo, Mahimahi, and Marlin	IV.22
IV.2.3	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Onaga and Bigeye Scad	IV.22
IV.2.4	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.23
IV.2.5	Guam 1980-2002 Average Monthly Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	IV.23
IV.3.1	Guam 1980-2002 Annual Trend of Fisheries Categories: Estimated Commercial Landings of Pelagic, Bottom, Reef, and Other	IV.24
IV.3.2	Guam 1980-2002 Annual Trend of Estimated Total Commercial Landings	IV.24
IV.3.3	Guam 1980-2002 Annual Trends of Estimated Commercial Landings Tunas, PMUS, and BMUS	IV.25
IV.3.4	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Wahoo, Mahimahi, and Billfish	IV.25
IV.3.5	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Skipjack, Yellowfin, and Other Tunas	IV.26
IV.3.6	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Onaga and Bigeye Scad	IV.26
IV.3.7	Guam 1980-2002 Annual Trends: Estimated Commercial Landings of Miscellaneous Reef Fish and Bottomfish	IV.27
IV.4.1	Guam 1980-2002 Monthly Est. Commercial Landings of Wahoo	IV.27
IV.4.2	Guam 1980-2002 Monthly Est. Commercial Landings of Mahimahi	IV.28
IV.4.3	Guam 1980-2002 Monthly Est. Commercial Landings of Marlin	IV.28
IV.4.4	Guam 1980-2002 Monthly Est. Commercial Landings of Skipjack Tuna	IV.29

LIST OF GUAM FIGURES (cont.)

Figure	Title	Page
IV.4.5	Guam 1980-2002 Monthly Est. Commercial Landings of Yellowfin Tuna	IV.29
IV.4.6	Guam 1980-2002 Monthly Est. Commercial Landings of Onaga	IV.30
IV.4.7	Guam 1980-2002 Monthly Est. Commercial Landings of Bigeye Scad	IV.30
IV.4.8	Guam 1980-2002 Monthly Est. Commercial Landings of Dogtooth Tuna	IV.31
IV.4.9	Guam 1980-2002 Monthly Est. Commercial Landings of Reef Fish	IV.31
IV.4.10	Guam 1980-2002 Monthly Est. Commercial Landings of Bottomfish	IV.32

GUAM 2002 FISHERY STATISTICS

INTRODUCTION

The Territory of Guam is the southernmost, largest, and most populous island in the Mariana Archipelago.

Location: 13.4°N latitude, 144.4°E longitude

Population: 163,941 (*The World Factbook*, 2003)

Economy: U.S. military, tourism, and fish and handicrafts exports



Guam

source: <<http://www.cia.gov/cia/publications/factbook/gq.html>>;
The World Factbook

Fishing activities on Guam are divided into two basic categories: offshore and inshore fishing. Offshore fishing typically involves small boats (12 to 48 feet) going on 1- to 2-day trolling and bottomfishing trips. They usually originate from one of the three principal harbors located on the west coast and southern tip of the island. Inshore fishing is usually conducted without the use of a boat and consists mostly of nearshore casting, netting, and spearfishing. From the late 1980s to about 1996, the sportfishing charter boat industry grew significantly due to a strong Asian economy. Since 1996, declines in that economy have resulted in a downturn. However, charter boats still contribute considerably to the commercial landings on Guam since much of their catch is sold. In recent years, the consumption of reef fish has increased on Guam, making it profitable to sell locally caught bottomfish. This demand, however, appears to be stressing bottomfish stocks around Guam. Bottomfish and BMUS species are not caught by only bottomfishing, but also by other methods such as gillnetting and spearfishing.

In 1982, WPacFIN began working with staff of the Division of Aquatic and Wildlife Resources (DAWR) and with local fish dealers to obtain information on commercial landings through voluntary use of "trip ticket" invoices provided by WPacFIN. The tables and graphs in this section are based on data that are summarized from receipts submitted by all participating dealers on Guam and then adjusted to create the

IV.2

estimated total commercial landings based on an estimated annual percent coverage factor.

COMMERCIAL LANDINGS DATA COLLECTION SYSTEM

There are three sources of fish in Guam's commercial market: 1) full-time commercial fishermen; 2) part-time commercial fishermen; and 3) subsistence or recreational "expense" fishermen who frequently sell portions of their catch to help defray costs. Licenses are not required to sell fish in Guam, nor are there any reporting requirements for those selling fish.

In July 1979 the Guam Fishermen's Coop was established in Agana through government funding. It subsequently became the central distribution center for fresh local fish. Prior to 1979 there was no central place to sell fish, and fishermen had to develop their own markets and peddle fish after each trip.

In 1982, WPacFIN began working with the Coop to improve their invoicing system and to obtain data on all fish purchases. A cooperative system was established whereby the Coop would use forms and coding schemes designed by WPacFIN and would supply copies of all invoices to WPacFIN for computer data entry. In return, WPacFIN would provide the Coop with document quality control and computer-generated summary statistics. All purchase data back to July 1979 were also coded and computerized. As time progressed, other fish markets began to operate, and DAWR and WPacFIN staff worked with them to obtain data through the voluntary receipt book program.

Although a proposed law has been introduced several times that would require reporting by dealers and possibly commercial fishermen, it has never made it very far through the legislative process, and the commercial landings data collection system remains voluntary.

Data collected on commercial receipts forms include:

- Date
- Number of fishermen
- Area fished
- Number of pieces caught
- Price per pound
- Fisherman code
- Hours fished
- Species caught
- Pounds caught

COMMERCIAL LANDINGS DATA PROCESSING SYSTEM

In earlier years data were processed at the central WPacFIN office in Honolulu. But beginning in 1994 DAWR staff took over this task using a computer and software provided by WPacFIN. The processing system for the commercial landings data collected from the fish dealers is fairly straightforward. Dealers complete a purchase form every time they purchase fish from a fisherman. On this form, catches are divided into categories for weighing by species or species group (where practicable, number of pieces is also recorded). Once all the edits, adjustments, verifications, and corrections are made, summary reports are generated. Numerous standard reports are available, but only the monthly and annual landings by species are provided in this document.

COMMERCIAL LANDINGS DATA REPORTING SYSTEM

After completing all editing, adjusting, and quality control activities for the commercial landings data, monthly and annual summary reports by species are generated. Each table contains information on the pounds, value, and the average price per pound for each species or species group. Each monthly report contains a subtotal for the sum of all species combined for that month. Annual reports contain the estimated total landings for each species and the estimated total recorded landings for all species for the calendar year. Included with the estimated commercial landings summary reports are graphs of some of the important statistics.

Please note that commercial landings data have been adjusted to reflect total coverage and are referenced as "Estimated Commercial Landings" in the charts and tables. Also, some of the charts in this volume are new or modified from earlier volumes.

The following groupings of species, species categories, and abbreviations are used in the tables and graphs for Guam's commercial landings:

IV.4

Note: Many of the species included in this report have been re-categorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

- Mahimahi (dolphin)
- Marlin (probably all blue but possibly striped or black)
- Spearfish
- Sailfish
- Wahoo
- Sharks

II. Bottomfish Management Unit Species (BMUS)

- Jacks (unclassified but excluding bigeye scad)
- Amberjack
- Bottomfish (unclassified)
- Ehu (red snapper)
- Gindai (flower snapper)
- Grouper
- Kalekale (pink snapper)
- Lehi (silverjaw snapper)
- Onaga (red or longtail snapper)
- Opakapaka (pink snapper)
- Uku (gray snapper)
- Emperor (mafute)

III. Billfish

- Marlin (probably all blue but possibly striped or black)
- Spearfish
- Sailfish

IV. Tunas

- Tunas (unclassified)
- Skipjack Tuna
- Yellowfin Tuna
- Dogtooth or White Tuna
- Kawakawa

IV.5

V. Other Tuna

All the above tunas excluding skipjack and yellowfin tunas.

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species plus the following:

Troll Fish (unclassified)
Barracuda
Rainbow Runner

B. Bottomfish

Same as the BMUS

C. Reef Fish

Reef Fish (unclassified)	Parrotfish
Giant Wrasse	Snapper
Rabbitfish	Surgeonfish
Rudderfish	Unicornfish
Squirrelfish	Goatfish

D. Other

Miscellaneous (unclassified)	Coconut Crab
Bigeye Scad	Lobster
Mullet	Shrimp
Eels	Octopus
Milkfish	Squid
Invertebrates (unclassified)	Seaweeds
Crabs (unclassified)	Imported

INTERPRETATION OF STATISTICS

The user is reminded again to pay heed to the precautions and assumptions identified earlier in this document when making interpretations of or inferences from data reported in the tables and graphs. Remember also that the commercial landings summaries are adjusted numbers based on samples of fishing activities.

IV.6

Table IV.1.1

Guam 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Unknown	-	\$0	\$0.00
Assorted	21	\$51	\$2.50
Miscellaneous	35	\$88	\$2.50
Bigeye Scad (Atulai)	5,123	\$12,878	\$2.51
Black Jack	12	\$31	\$2.50
Jacks	3,841	\$9,823	\$2.56
Sharks	21	\$57	\$2.75
Bottom Fish	643	\$1,866	\$2.90
Ehu (Red Snapper)	774	\$2,881	\$3.72
Gindai (Flower Snap)	421	\$1,635	\$3.88
Grouper	1,199	\$3,556	\$2.97
Kalikali (Pink Snap)	519	\$1,557	\$3.00
Lehi (Silverjaw)	717	\$2,785	\$3.88
Onaga (Red Snapper)	1,982	\$9,416	\$4.75
Opakapaka (Pink Snp)	581	\$2,187	\$3.76
Uku (Gray Snapper)	901	\$2,306	\$2.56
Tagafi (Red Snapper)	92	\$231	\$2.50
Amberjack	338	\$905	\$2.68
Reef Fish	123,954	\$337,234	\$2.72
Wrasse	792	\$1,963	\$2.48
Rabbitfish	1,781	\$6,264	\$3.52
Mafute (Emperor)	5,558	\$15,065	\$2.71
Parrotfish	472	\$1,154	\$2.45
Snapper	718	\$1,845	\$2.57
Surgeonfish	989	\$2,521	\$2.55
Unicornfish	10,339	\$26,918	\$2.60
Goatfish	57	\$143	\$2.50
Troll Fish	218	\$318	\$1.46
Barracuda	4,463	\$8,383	\$1.88
Mahi / Dolphinfin	77,671	\$126,850	\$1.63
Swordfish	21	\$21	\$1.00
Marlin	31,341	\$38,429	\$1.23
Spearfish	184	\$208	\$1.13
Sailfish	1,602	\$1,871	\$1.17
Rainbow Runner	8,231	\$14,902	\$1.81
Monchong	329	\$764	\$2.32
Wahoo	53,683	\$106,730	\$1.99
Tunas	38	\$48	\$1.25
Bonita/skipjack Tuna	106,972	\$125,369	\$1.17
Dogtooth Tuna	3,027	\$3,709	\$1.23
Yellowfin Tuna	31,999	\$59,289	\$1.85
Invertebrates	41	\$126	\$3.03
Lobster	1,527	\$5,543	\$3.63
Octopus	2,764	\$7,441	\$2.69
Shrimp\prawn(S. water)	31	\$76	\$2.50
TOTAL	486,023	\$945,435	\$1.95

IV.7

Table IV.1.2

Guam January 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	64	\$139	\$2.17
Jacks	256	\$602	\$2.35
Ehu (Red Snapper)	35	\$140	\$4.00
Gindai (Flower Snap)	12	\$45	\$3.62
Grouper	42	\$108	\$2.56
Kalikali (Pink Snap)	56	\$168	\$3.00
Lehi (Silverjaw)	18	\$73	\$4.00
Onaga (Red Snapper)	28	\$138	\$5.00
Opakapaka (Pink Snp)	24	\$96	\$4.00
Uku (Gray Snapper)	9	\$26	\$2.75
Amberjack	32	\$87	\$2.70
Reef Fish	16,675	\$44,453	\$2.67
Wrasse	149	\$385	\$2.59
Mafute (Emperor)	95	\$239	\$2.52
Unicornfish	46	\$138	\$3.00
Barracuda	361	\$693	\$1.92
Mahi / Dolphinfish	15,842	\$25,904	\$1.64
Marlin	346	\$459	\$1.33
Sailfish	79	\$93	\$1.17
Rainbow Runner	826	\$1,411	\$1.71
Wahoo	4,619	\$9,738	\$2.11
Bonita/skipjack Tuna	5,571	\$7,000	\$1.26
Dogtooth Tuna	181	\$226	\$1.25
Yellowfin Tuna	2,318	\$4,712	\$2.03
Lobster	24	\$82	\$3.50
Octopus	68	\$173	\$2.54
TOTAL	47,775	\$97,330	\$2.04

IV.8

Table IV.1.3

Guam February 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Unknown	-	\$0	\$0.00
Jacks	186	\$441	\$2.37
Bottom Fish	47	\$142	\$3.00
Gindai (Flower Snap)	8	\$31	\$4.00
Grouper	82	\$245	\$3.00
Kalikali (Pink Snap)	5	\$16	\$3.00
Lehi (Silverjaw)	28	\$113	\$4.00
Onaga (Red Snapper)	41	\$203	\$5.00
Uku (Gray Snapper)	31	\$81	\$2.60
Amberjack	21	\$53	\$2.54
Reef Fish	14,338	\$37,842	\$2.64
Wrasse	274	\$680	\$2.49
Rabbitfish	4	\$9	\$2.50
Mafute (Emperor)	310	\$835	\$2.69
Parrotfish	21	\$41	\$2.00
Snapper	74	\$185	\$2.50
Surgeonfish	64	\$192	\$3.00
Unicornfish	1,007	\$2,800	\$2.78
Troll Fish	161	\$232	\$1.44
Barracuda	1,245	\$2,319	\$1.86
Mahi / Dolphinfinh	25,417	\$39,555	\$1.56
Swordfish	21	\$21	\$1.00
Marlin	1,470	\$1,777	\$1.21
Spearfish	50	\$50	\$1.00
Sailfish	156	\$162	\$1.04
Rainbow Runner	583	\$946	\$1.62
Wahoo	8,274	\$16,930	\$2.05
Bonita/skipjack Tuna	13,683	\$17,291	\$1.26
Dogtooth Tuna	367	\$463	\$1.26
Yellowfin Tuna	2,660	\$5,210	\$1.96
Lobster	42	\$152	\$3.60
Octopus	191	\$478	\$2.50
TOTAL	70,860	\$129,497	\$1.83

IV.9

Table IV.1.4

Guam March 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Miscellaneous	35	\$88	\$2.50
Bigeye Scad (Atulai)	3	\$9	\$2.50
Jacks	48	\$122	\$2.56
Grouper	35	\$104	\$3.00
Opakapaka (Pink Snp)	3	\$11	\$4.00
Uku (Gray Snapper)	9	\$24	\$2.50
Reef Fish	12,503	\$33,181	\$2.65
Wrasse	195	\$466	\$2.39
Rabbitfish	6	\$18	\$3.00
Mafute (Emperor)	164	\$399	\$2.44
Parrotfish	8	\$19	\$2.25
Snapper	24	\$59	\$2.50
Surgeonfish	19	\$58	\$3.00
Unicornfish	1,212	\$3,279	\$2.71
Troll Fish	57	\$86	\$1.50
Barracuda	633	\$1,114	\$1.76
Mahi / Dolphinfish	18,231	\$28,981	\$1.59
Marlin	2,421	\$3,115	\$1.29
Spearfish	19	\$19	\$1.00
Sailfish	242	\$242	\$1.00
Rainbow Runner	531	\$932	\$1.75
Wahoo	7,313	\$14,364	\$1.96
Bonita/skipjack Tuna	9,728	\$12,003	\$1.23
Dogtooth Tuna	159	\$215	\$1.35
Yellowfin Tuna	3,555	\$6,606	\$1.86
Lobster	51	\$159	\$3.11
Octopus	136	\$362	\$2.66
TOTAL	57,340	\$106,033	\$1.85

IV.10

Table IV.1.5

Guam April 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,352	\$3,004	\$2.22
Jacks	311	\$745	\$2.40
Sharks	21	\$57	\$2.75
Gindai (Flower Snap)	36	\$144	\$4.00
Grouper	190	\$561	\$2.95
Kalikali (Pink Snap)	79	\$238	\$3.00
Lehi (Silverjaw)	70	\$280	\$4.00
Opakapaka (Pink Snp)	14	\$54	\$4.00
Uku (Gray Snapper)	92	\$241	\$2.63
Amberjack	64	\$168	\$2.64
Reef Fish	9,595	\$25,954	\$2.70
Rabbitfish	208	\$597	\$2.87
Mafute (Emperor)	461	\$1,260	\$2.74
Snapper	110	\$276	\$2.51
Surgeonfish	316	\$791	\$2.50
Unicornfish	2,881	\$7,600	\$2.64
Goatfish	30	\$75	\$2.50
Barracuda	425	\$781	\$1.84
Mahi / Dolphinfish	7,979	\$13,265	\$1.66
Marlin	2,524	\$3,572	\$1.42
Spearfish	47	\$54	\$1.14
Sailfish	334	\$405	\$1.21
Rainbow Runner	644	\$1,260	\$1.96
Wahoo	5,624	\$11,314	\$2.01
Bonita/skipjack Tuna	10,750	\$13,206	\$1.23
Dogtooth Tuna	328	\$422	\$1.29
Yellowfin Tuna	3,709	\$7,211	\$1.94
Lobster	53	\$197	\$3.73
Octopus	316	\$852	\$2.70
Shrimp\prawn(S. water)	31	\$76	\$2.50
TOTAL	48,591	\$94,658	\$1.95

IV.11

Table IV.1.6

Guam May 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	55	\$137	\$2.50
Jacks	720	\$1,832	\$2.55
Bottom Fish	311	\$856	\$2.76
Ehu (Red Snapper)	173	\$529	\$3.06
Gindai (Flower Snap)	126	\$484	\$3.83
Grouper	168	\$500	\$2.97
Kalikali (Pink Snap)	58	\$175	\$3.00
Lehi (Silverjaw)	37	\$148	\$4.00
Onaga (Red Snapper)	218	\$1,067	\$4.90
Opakapaka (Pink Snp)	56	\$224	\$4.00
Uku (Gray Snapper)	183	\$462	\$2.53
Amberjack	11	\$30	\$2.81
Reef Fish	11,468	\$30,833	\$2.69
Wrasse	175	\$431	\$2.47
Rabbitfish	825	\$2,743	\$3.32
Mafute (Emperor)	904	\$2,440	\$2.70
Parrotfish	443	\$1,094	\$2.47
Snapper	84	\$215	\$2.56
Surgeonfish	220	\$556	\$2.53
Unicornfish	1,405	\$3,560	\$2.53
Goatfish	27	\$68	\$2.50
Barracuda	296	\$568	\$1.92
Mahi / Dolphinfish	1,534	\$2,737	\$1.78
Marlin	2,511	\$3,374	\$1.34
Sailfish	217	\$217	\$1.00
Rainbow Runner	552	\$1,065	\$1.93
Wahoo	1,075	\$2,048	\$1.90
Bonita/skipjack Tuna	18,154	\$19,910	\$1.10
Dogtooth Tuna	168	\$234	\$1.39
Yellowfin Tuna	1,985	\$3,485	\$1.76
Lobster	223	\$824	\$3.70
Octopus	407	\$1,075	\$2.64
TOTAL	44,789	\$83,923	\$1.87

IV.12

Table IV.1.7

Guam June 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Assorted	21	\$51	\$2.50
Jacks	445	\$1,146	\$2.57
Bottom Fish	11	\$37	\$3.50
Ehu (Red Snapper)	3	\$12	\$4.00
Gindai (Flower Snap)	46	\$186	\$4.00
Grouper	48	\$143	\$3.00
Kalikali (Pink Snap)	5	\$14	\$3.00
Lehi (Silverjaw)	31	\$125	\$4.00
Onaga (Red Snapper)	179	\$888	\$4.97
Opakapaka (Pink Snp)	44	\$174	\$4.00
Uku (Gray Snapper)	33	\$83	\$2.51
Amberjack	15	\$46	\$3.00
Reef Fish	9,528	\$26,051	\$2.73
Rabbitfish	31	\$92	\$3.00
Mafute (Emperor)	272	\$745	\$2.74
Snapper	67	\$168	\$2.50
Surgeonfish	52	\$131	\$2.50
Unicornfish	1,317	\$3,302	\$2.51
Barracuda	110	\$220	\$2.00
Mahi / Dolphinfish	206	\$357	\$1.73
Marlin	1,928	\$2,109	\$1.09
Sailfish	43	\$43	\$1.00
Rainbow Runner	542	\$1,079	\$1.99
Wahoo	411	\$920	\$2.24
Bonita/skipjack Tuna	8,889	\$8,892	\$1.00
Dogtooth Tuna	64	\$86	\$1.35
Yellowfin Tuna	4,315	\$7,260	\$1.68
Invertebrates	2	\$8	\$3.50
Lobster	277	\$983	\$3.55
Octopus	316	\$849	\$2.68
TOTAL	29,252	\$56,201	\$1.92

IV.13

Table IV.1.8

Guam July 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	8	\$19	\$2.50
Jacks	249	\$616	\$2.47
Ehu (Red Snapper)	12	\$47	\$4.00
Gindai (Flower Snap)	21	\$85	\$4.00
Grouper	35	\$104	\$3.00
Kalikali (Pink Snap)	42	\$127	\$3.00
Lehi (Silverjaw)	74	\$296	\$4.00
Onaga (Red Snapper)	65	\$333	\$5.09
Opakapaka (Pink Snp)	78	\$313	\$4.00
Uku (Gray Snapper)	122	\$303	\$2.47
Amberjack	17	\$38	\$2.25
Reef Fish	6,698	\$18,757	\$2.80
Rabbitfish	124	\$372	\$3.00
Mafute (Emperor)	190	\$528	\$2.78
Snapper	29	\$72	\$2.50
Unicornfish	491	\$1,228	\$2.50
Barracuda	21	\$45	\$2.17
Marlin	2,428	\$3,003	\$1.24
Sailfish	48	\$48	\$1.00
Rainbow Runner	1,470	\$2,826	\$1.92
Wahoo	396	\$793	\$2.00
Tunas	38	\$48	\$1.25
Bonita/skipjack Tuna	11,036	\$11,853	\$1.07
Dogtooth Tuna	704	\$738	\$1.05
Yellowfin Tuna	2,988	\$5,252	\$1.76
Invertebrates	6	\$21	\$3.50
Lobster	193	\$716	\$3.72
Octopus	36	\$91	\$2.50
TOTAL	27,622	\$48,672	\$1.76

IV.14

Table IV.1.9

Guam August 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	345	\$896	\$2.60
Black Jack	5	\$13	\$2.50
Jacks	605	\$1,635	\$2.70
Bottom Fish	55	\$194	\$3.50
Ehu (Red Snapper)	212	\$825	\$3.90
Gindai (Flower Snap)	66	\$250	\$3.76
Grouper	83	\$249	\$3.00
Kalikali (Pink Snap)	182	\$545	\$3.00
Lehi (Silverjaw)	138	\$525	\$3.80
Onaga (Red Snapper)	286	\$1,290	\$4.50
Opakapaka (Pink Snp)	108	\$424	\$3.94
Uku (Gray Snapper)	116	\$301	\$2.58
Tagafi (Red Snapper)	92	\$231	\$2.50
Amberjack	44	\$109	\$2.50
Reef Fish	8,823	\$24,775	\$2.81
Rabbitfish	165	\$494	\$3.00
Mafute (Emperor)	1,105	\$3,000	\$2.72
Snapper	14	\$34	\$2.50
Unicornfish	246	\$651	\$2.64
Barracuda	361	\$688	\$1.90
Mahi / Dolphinfinh	286	\$549	\$1.92
Marlin	4,298	\$5,260	\$1.22
Rainbow Runner	1,531	\$2,498	\$1.63
Monchong	62	\$139	\$2.25
Wahoo	1,626	\$3,318	\$2.04
Bonita/skipjack Tuna	9,472	\$10,973	\$1.16
Dogtooth Tuna	199	\$276	\$1.39
Yellowfin Tuna	3,694	\$6,876	\$1.86
Invertebrates	24	\$62	\$2.65
Lobster	231	\$834	\$3.62
Octopus	302	\$827	\$2.74
TOTAL	34,774	\$68,741	\$1.98

IV.15

Table IV.1.10

Guam September 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,324	\$3,330	\$2.52
Black Jack	7	\$18	\$2.50
Jacks	517	\$1,379	\$2.67
Bottom Fish	46	\$184	\$4.00
Ehu (Red Snapper)	209	\$813	\$3.89
Gindai (Flower Snap)	54	\$211	\$3.89
Grouper	145	\$436	\$3.00
Kalikali (Pink Snap)	63	\$188	\$2.98
Lehi (Silverjaw)	219	\$824	\$3.76
Onaga (Red Snapper)	697	\$3,196	\$4.58
Opakapaka (Pink Snp)	164	\$629	\$3.83
Uku (Gray Snapper)	86	\$224	\$2.59
Amberjack	34	\$86	\$2.56
Reef Fish	11,384	\$32,092	\$2.82
Mafute (Emperor)	601	\$1,637	\$2.72
Snapper	88	\$228	\$2.58
Surgeonfish	258	\$646	\$2.50
Unicornfish	814	\$2,043	\$2.51
Barracuda	256	\$510	\$1.99
Mahi / Dolphinfish	341	\$647	\$1.90
Marlin	9,370	\$10,700	\$1.14
Spearfish	59	\$74	\$1.25
Rainbow Runner	498	\$934	\$1.87
Wahoo	2,214	\$4,634	\$2.09
Bonita/skipjack Tuna	7,649	\$9,458	\$1.24
Dogtooth Tuna	119	\$156	\$1.30
Yellowfin Tuna	1,738	\$3,365	\$1.94
Lobster	283	\$1,037	\$3.66
Octopus	273	\$738	\$2.71
TOTAL	39,510	\$80,414	\$2.04

IV.16

Table IV.1.11

Guam October 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	1,123	\$3,026	\$2.69
Jacks	318	\$807	\$2.53
Bottom Fish	173	\$454	\$2.62
Ehu (Red Snapper)	90	\$352	\$3.91
Gindai (Flower Snap)	19	\$74	\$3.91
Grouper	291	\$872	\$3.00
Lehi (Silverjaw)	88	\$346	\$3.95
Onaga (Red Snapper)	295	\$1,434	\$4.86
Opakapaka (Pink Snp)	12	\$41	\$3.50
Uku (Gray Snapper)	107	\$284	\$2.66
Amberjack	91	\$264	\$2.90
Reef Fish	10,149	\$28,049	\$2.76
Rabbitfish	399	\$1,879	\$4.71
Mafute (Emperor)	1,116	\$3,069	\$2.75
Snapper	118	\$319	\$2.71
Surgeonfish	59	\$147	\$2.50
Unicornfish	791	\$1,981	\$2.50
Barracuda	434	\$846	\$1.95
Mahi / Dolphinfish	1,732	\$3,365	\$1.94
Marlin	2,156	\$2,710	\$1.26
Spearfish	9	\$12	\$1.25
Sailfish	234	\$324	\$1.38
Rainbow Runner	712	\$1,308	\$1.84
Wahoo	5,160	\$10,438	\$2.02
Bonita/skipjack Tuna	6,189	\$7,548	\$1.22
Dogtooth Tuna	334	\$365	\$1.09
Yellowfin Tuna	1,882	\$3,643	\$1.94
Invertebrates	10	\$35	\$3.57
Lobster	112	\$416	\$3.72
Octopus	379	\$1,031	\$2.72
TOTAL	34,580	\$75,437	\$2.18

IV.17

Table IV.1.12

Guam November 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Bigeye Scad (Atulai)	849	\$2,316	\$2.73
Jacks	171	\$462	\$2.71
Ehu (Red Snapper)	21	\$83	\$4.00
Gindai (Flower Snap)	23	\$92	\$4.00
Grouper	45	\$127	\$2.84
Kalikali (Pink Snap)	28	\$85	\$3.00
Onaga (Red Snapper)	121	\$606	\$5.00
Opakapaka (Pink Snp)	80	\$221	\$2.76
Uku (Gray Snapper)	98	\$246	\$2.50
Amberjack	9	\$24	\$2.50
Reef Fish	9,029	\$24,735	\$2.74
Mafute (Emperor)	275	\$740	\$2.69
Snapper	42	\$104	\$2.50
Unicornfish	129	\$336	\$2.60
Barracuda	291	\$541	\$1.86
Mahi / Dolphinfish	5,419	\$10,123	\$1.87
Marlin	1,208	\$1,464	\$1.21
Sailfish	249	\$337	\$1.36
Rainbow Runner	261	\$478	\$1.84
Monchong	128	\$289	\$2.25
Wahoo	14,142	\$26,854	\$1.90
Bonita/skipjack Tuna	4,466	\$5,481	\$1.23
Dogtooth Tuna	334	\$417	\$1.25
Yellowfin Tuna	2,007	\$3,305	\$1.65
Lobster	28	\$102	\$3.60
Octopus	262	\$744	\$2.84
TOTAL	39,715	\$80,311	\$2.02

IV.18

Table IV.1.13

Guam December 2002 Estimated Commercial Landings

Species	Pounds	Value	Price/Lb.
Jacks	15	\$37	\$2.50
Ehu (Red Snapper)	20	\$80	\$4.00
Gindai (Flower Snap)	9	\$35	\$4.00
Grouper	36	\$108	\$3.00
Kalikali (Pink Snap)	1	\$2	\$3.00
Lehi (Silverjaw)	14	\$54	\$4.00
Onaga (Red Snapper)	52	\$262	\$5.00
Uku (Gray Snapper)	13	\$32	\$2.50
Reef Fish	3,764	\$10,512	\$2.79
Rabbitfish	20	\$60	\$3.00
Mafute (Emperor)	67	\$174	\$2.60
Snapper	69	\$185	\$2.69
Barracuda	31	\$58	\$1.90
Mahi / Dolphinfish	684	\$1,367	\$2.00
Marlin	682	\$885	\$1.30
Rainbow Runner	82	\$165	\$2.00
Monchong	139	\$336	\$2.41
Wahoo	2,828	\$5,380	\$1.90
Bonita/skipjack Tuna	1,385	\$1,753	\$1.27
Dogtooth Tuna	70	\$111	\$1.58
Yellowfin Tuna	1,147	\$2,363	\$2.06
Lobster	11	\$39	\$3.61
Octopus	78	\$221	\$2.85
TOTAL	11,216	\$24,219	\$2.16

Figure IV.1.1

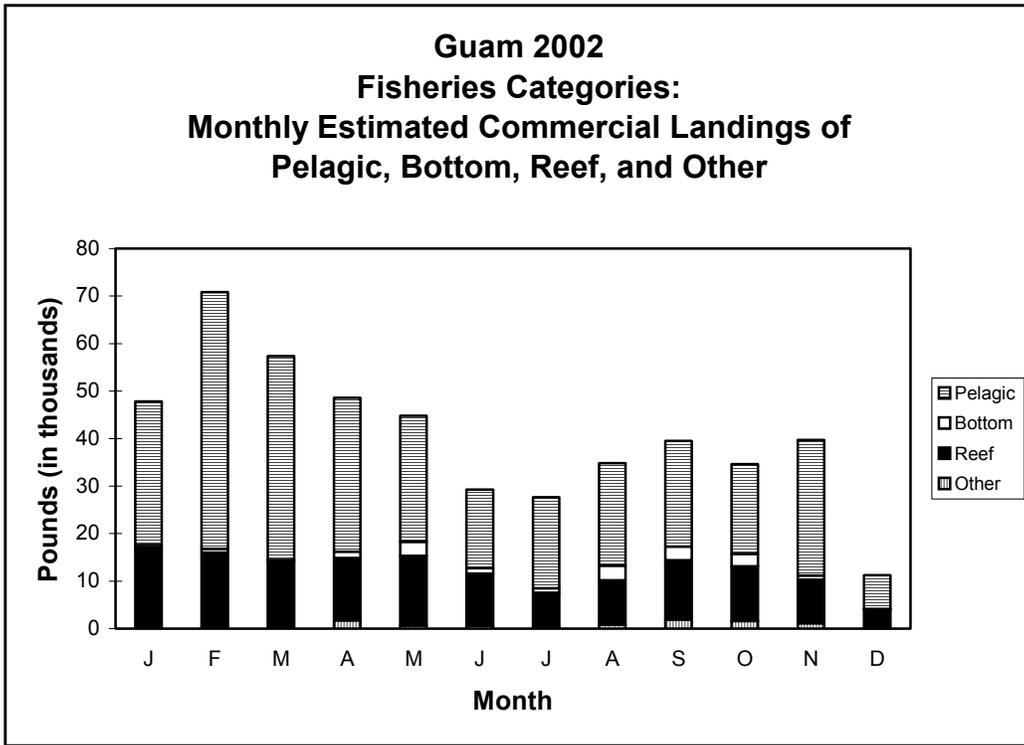


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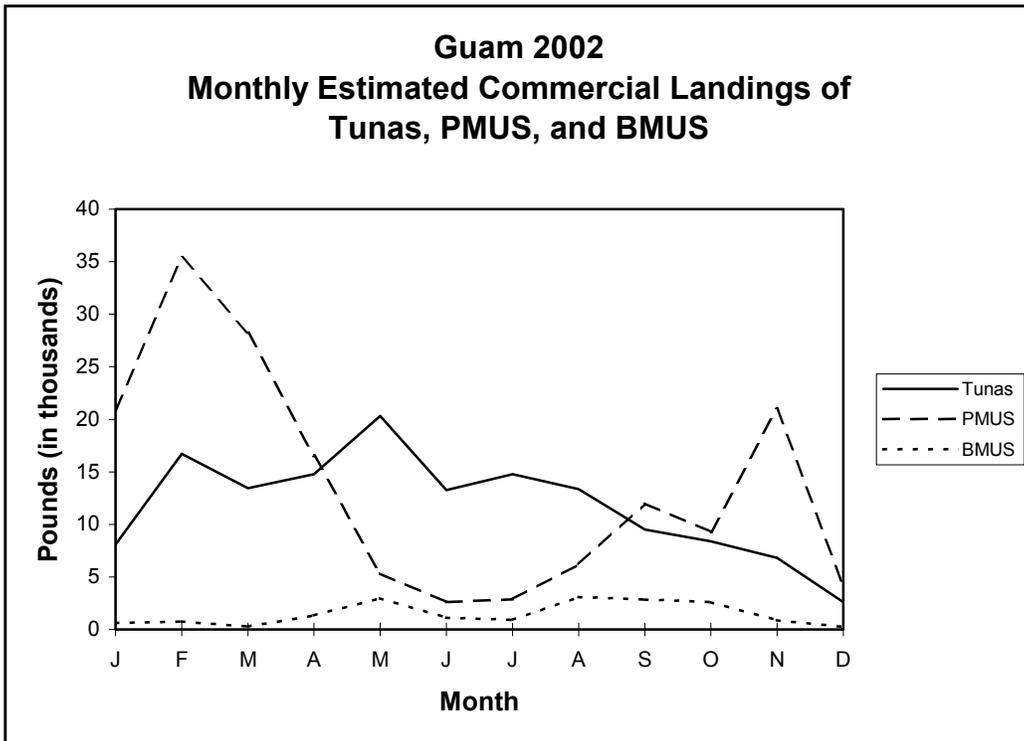


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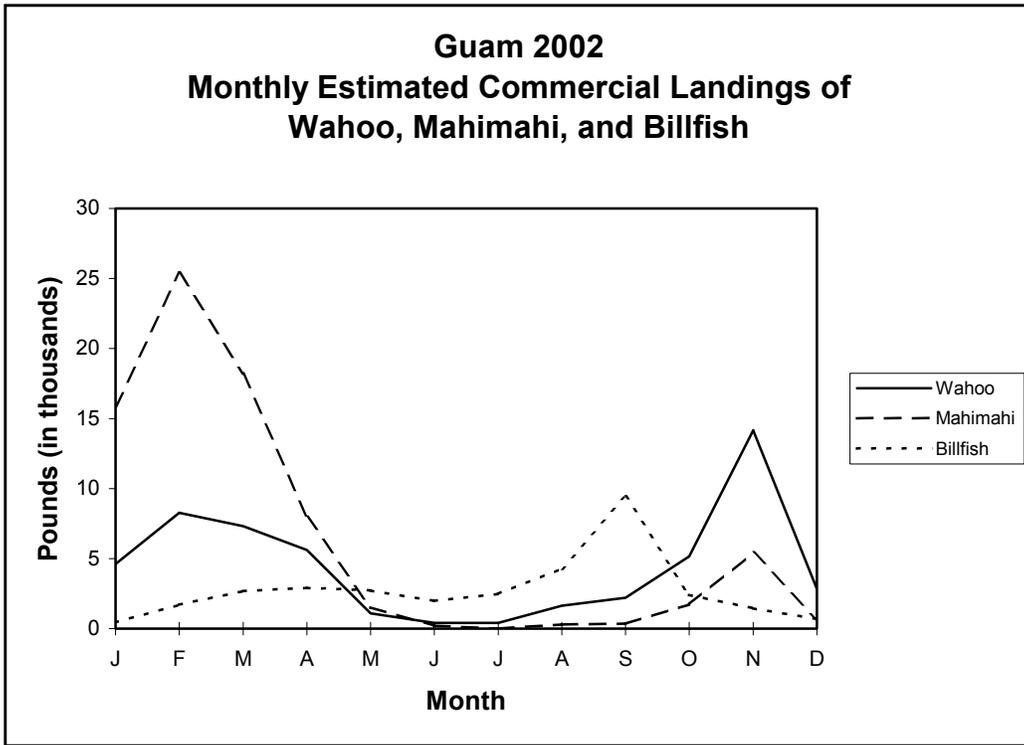


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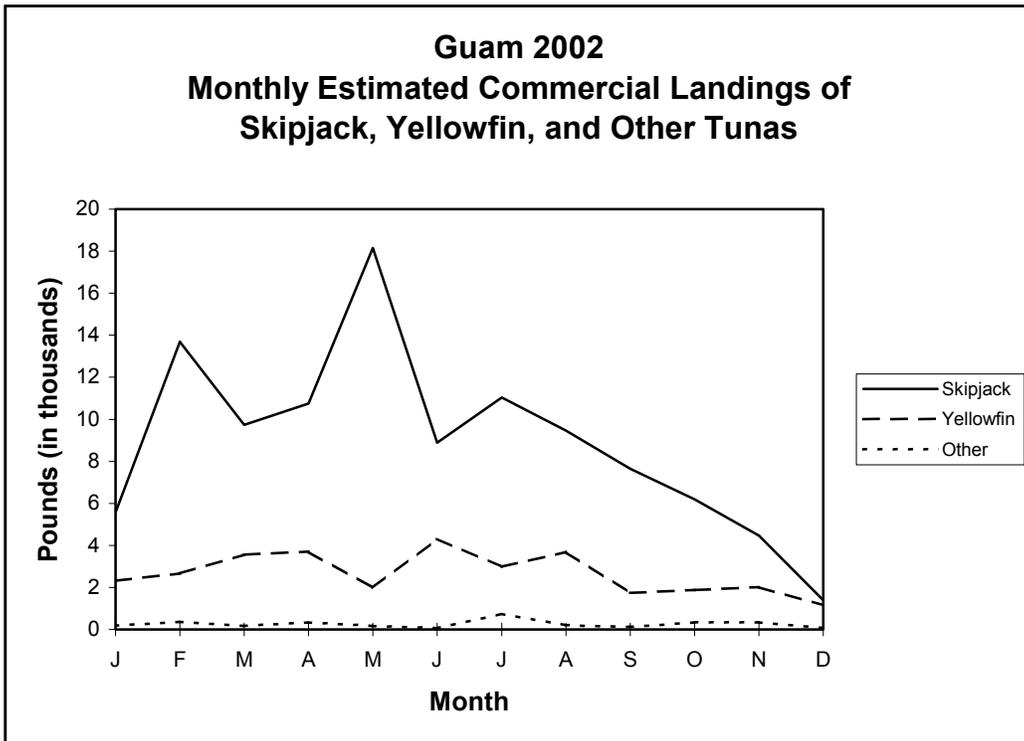


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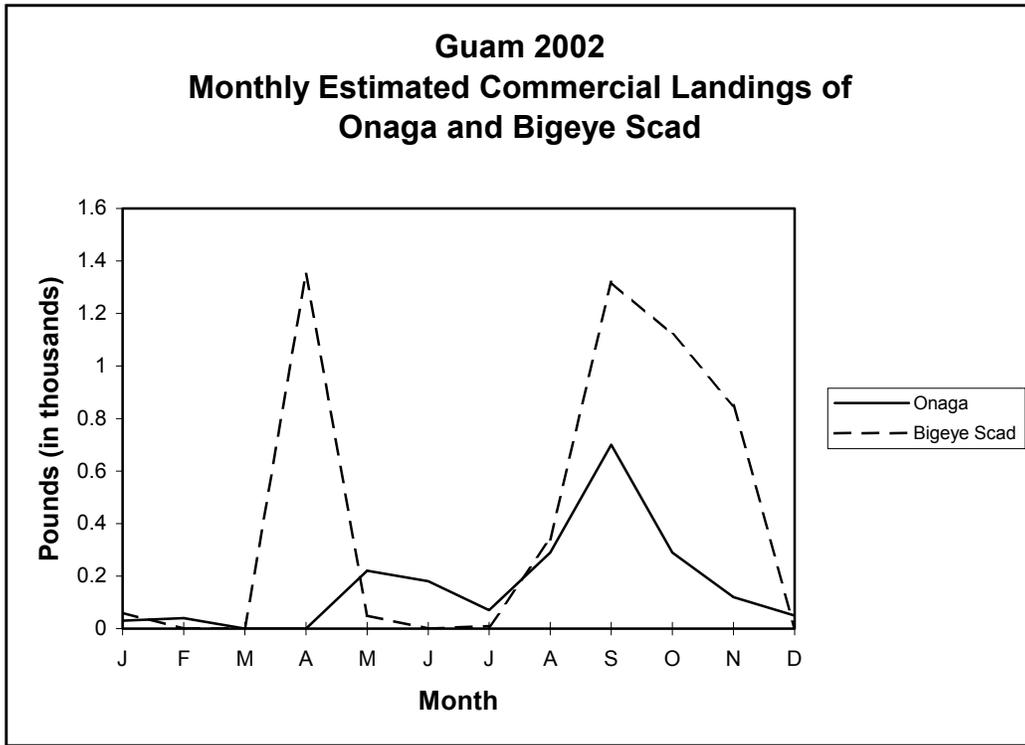


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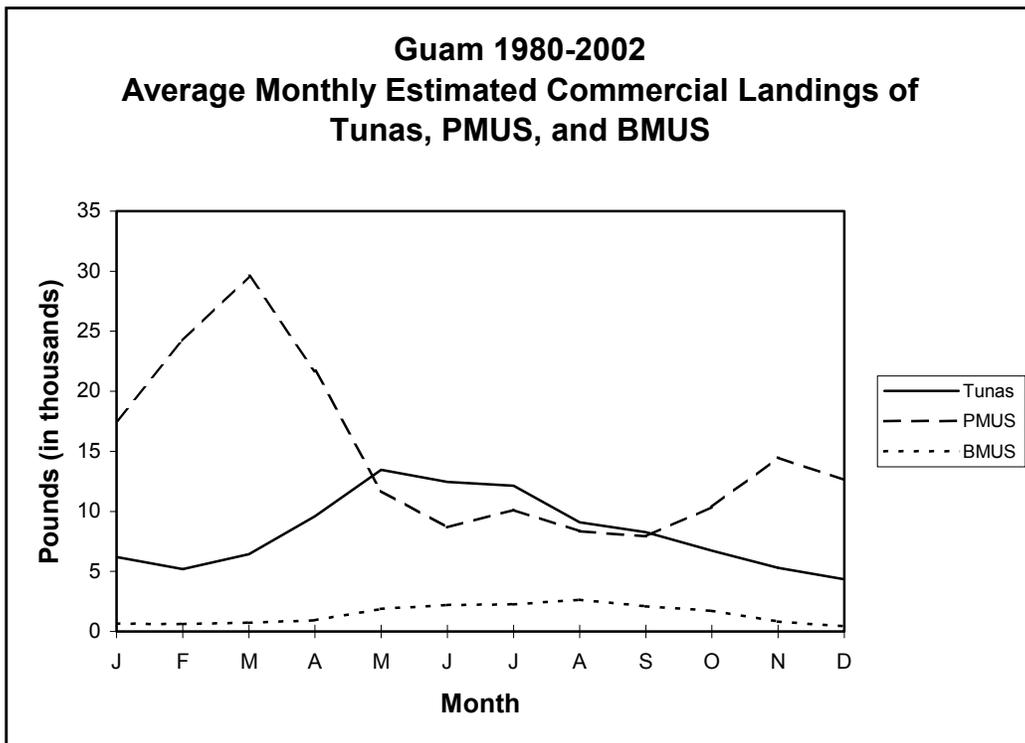


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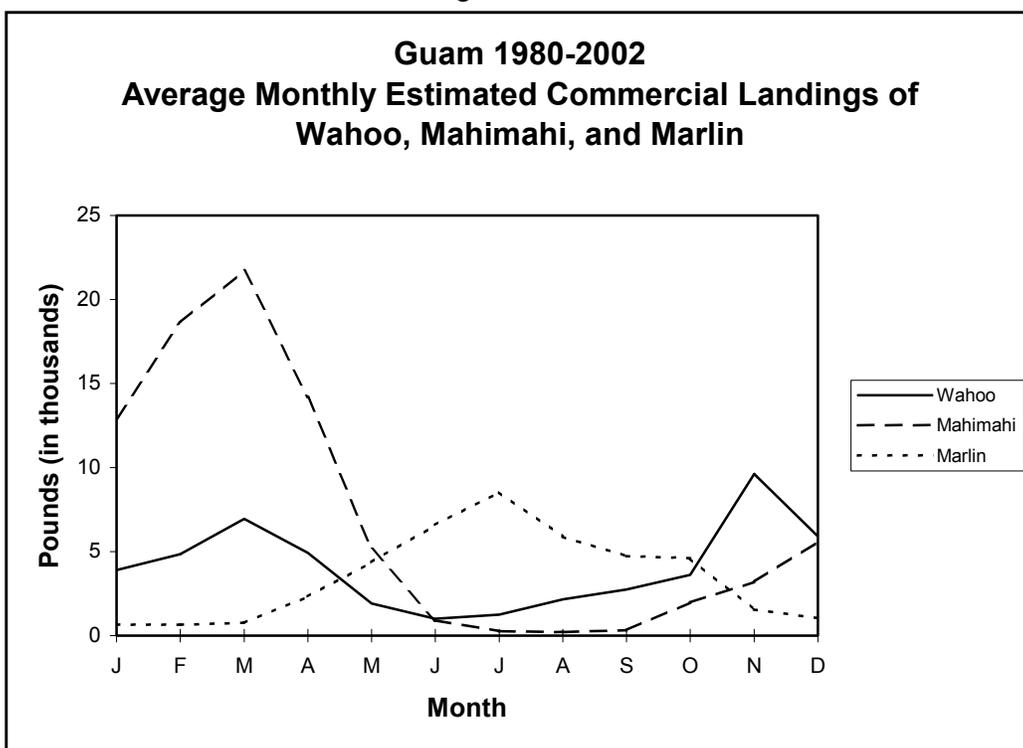


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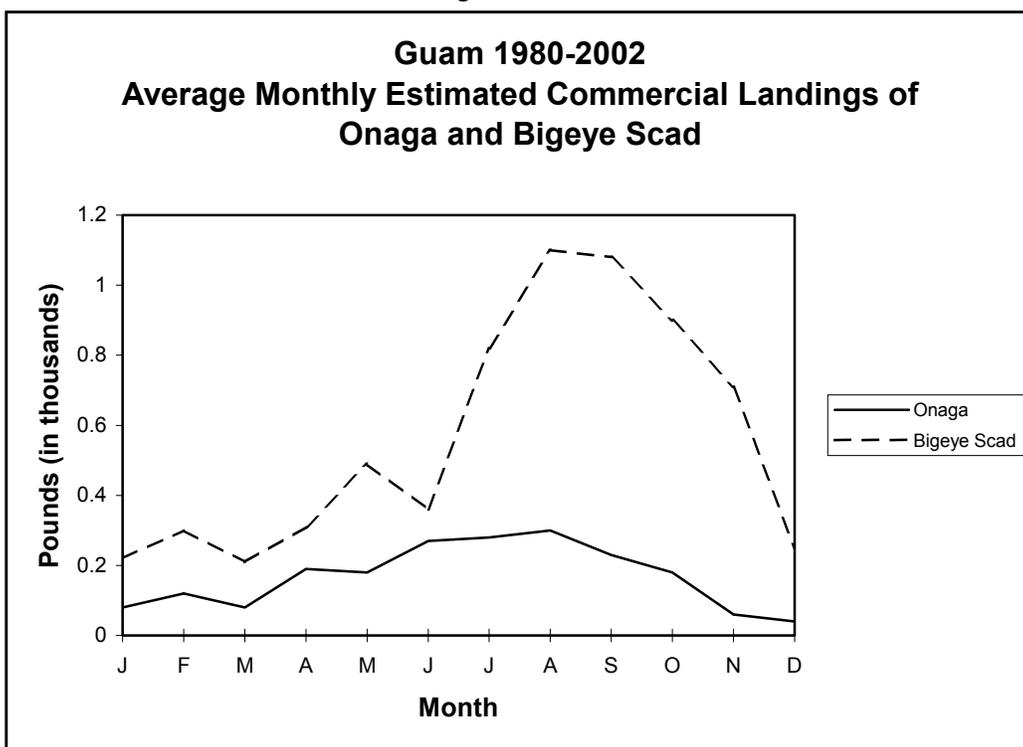


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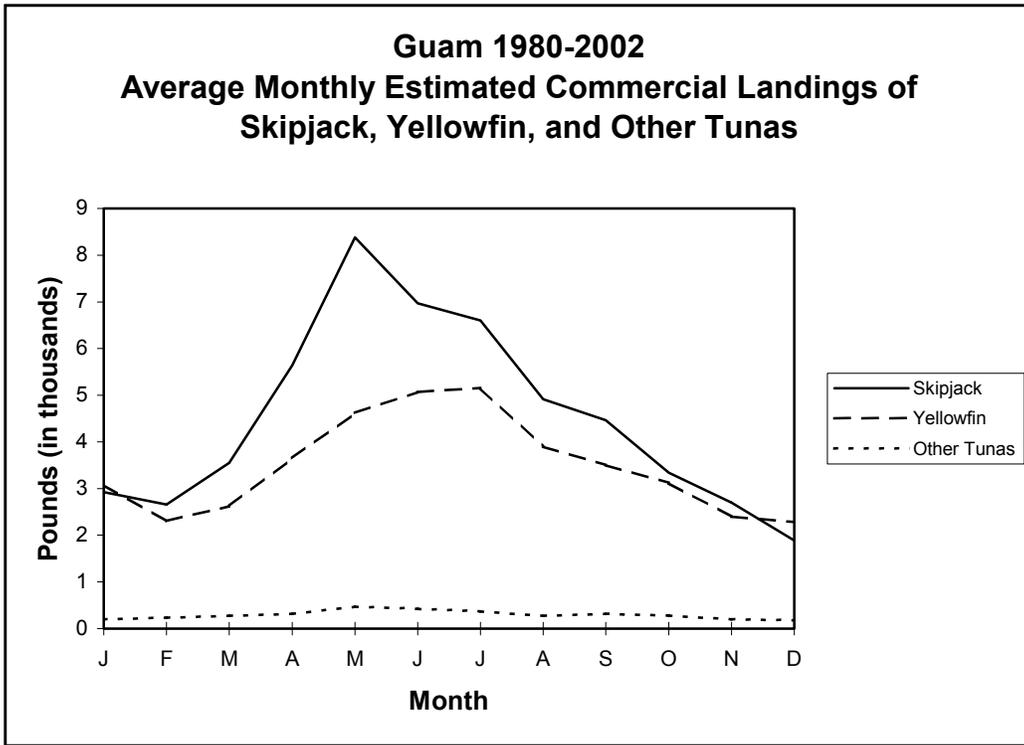


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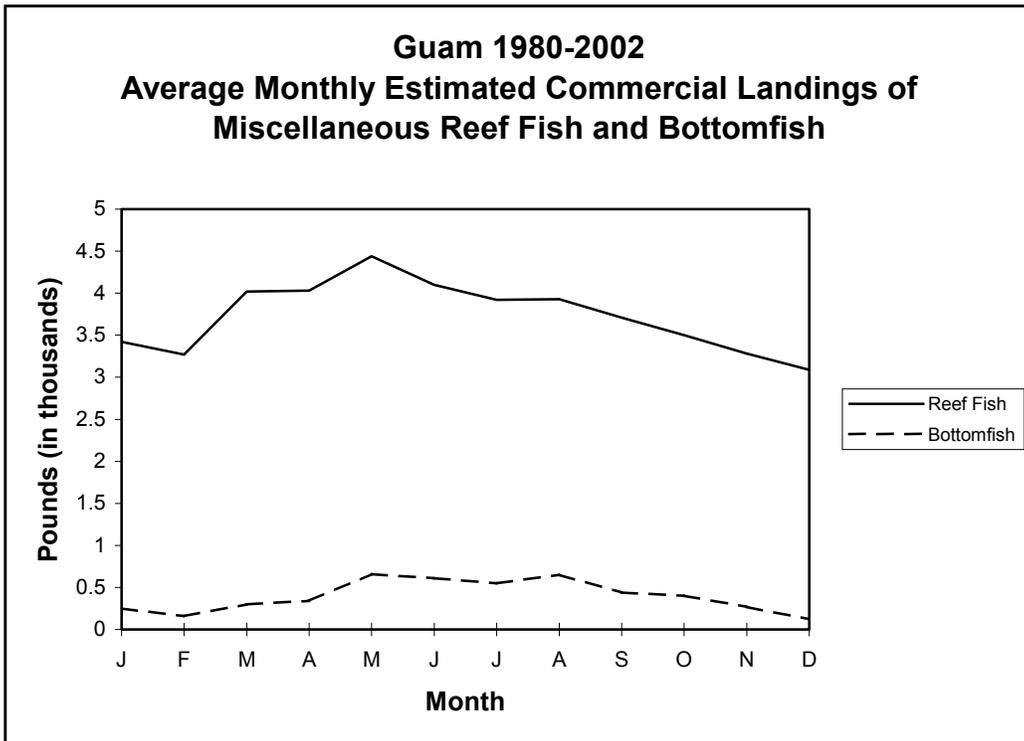


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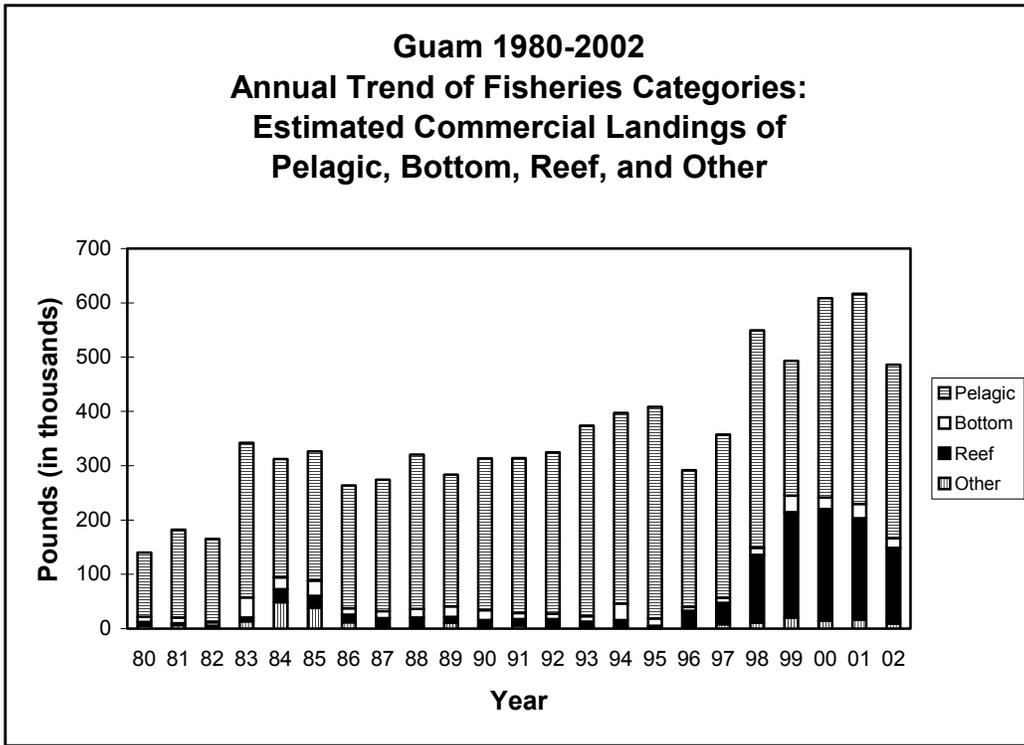


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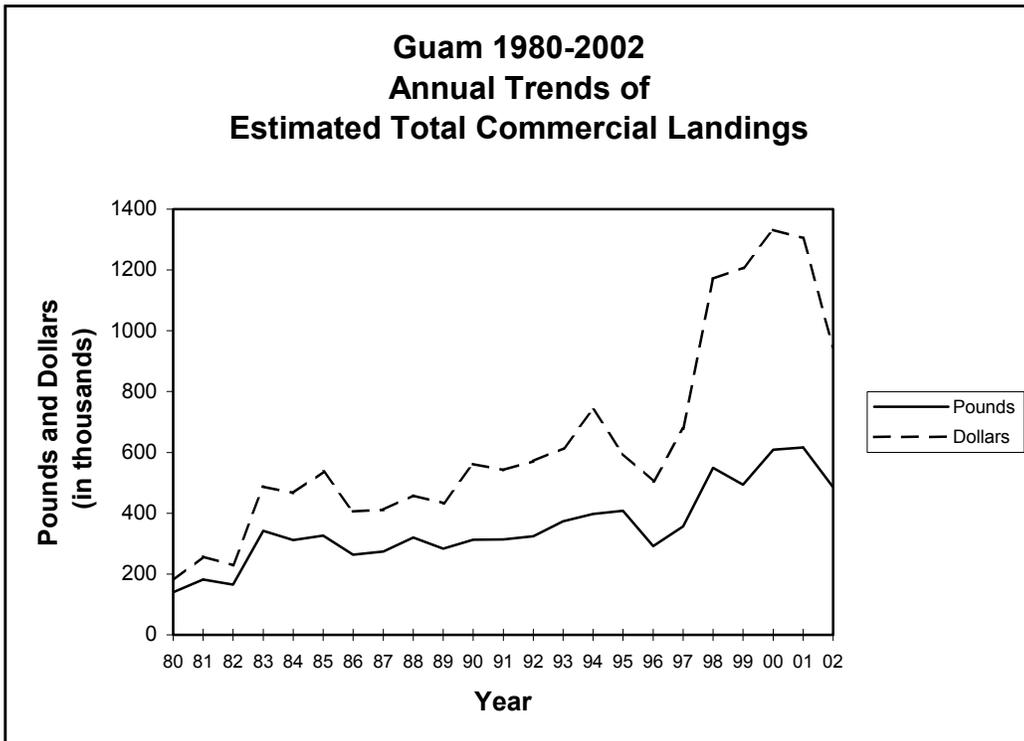


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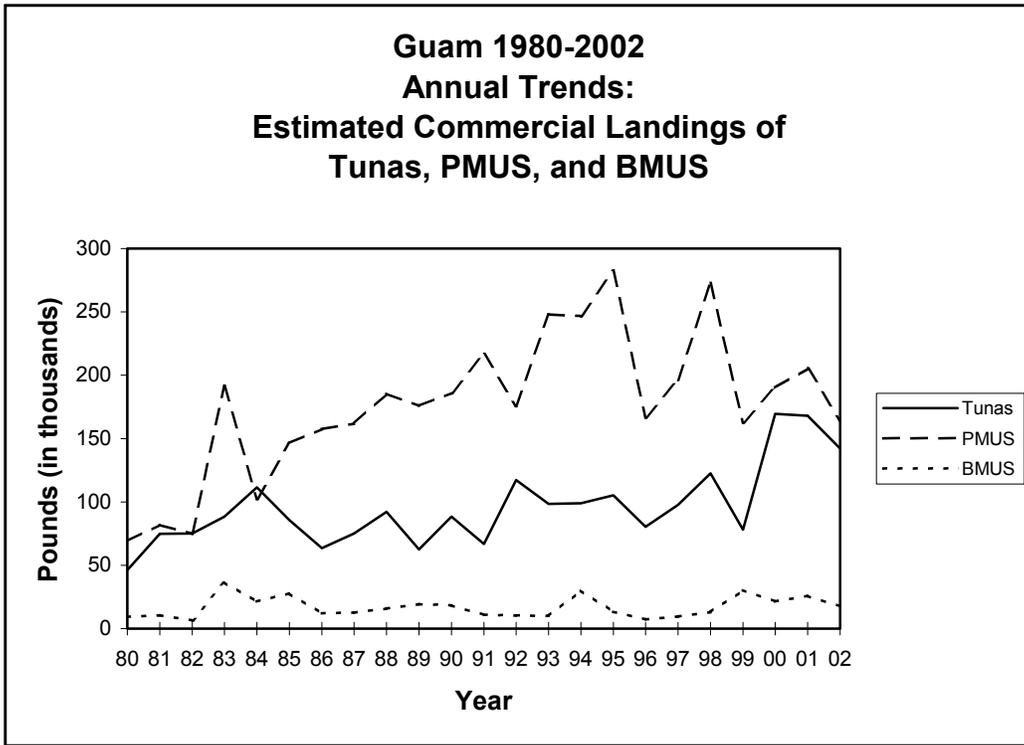


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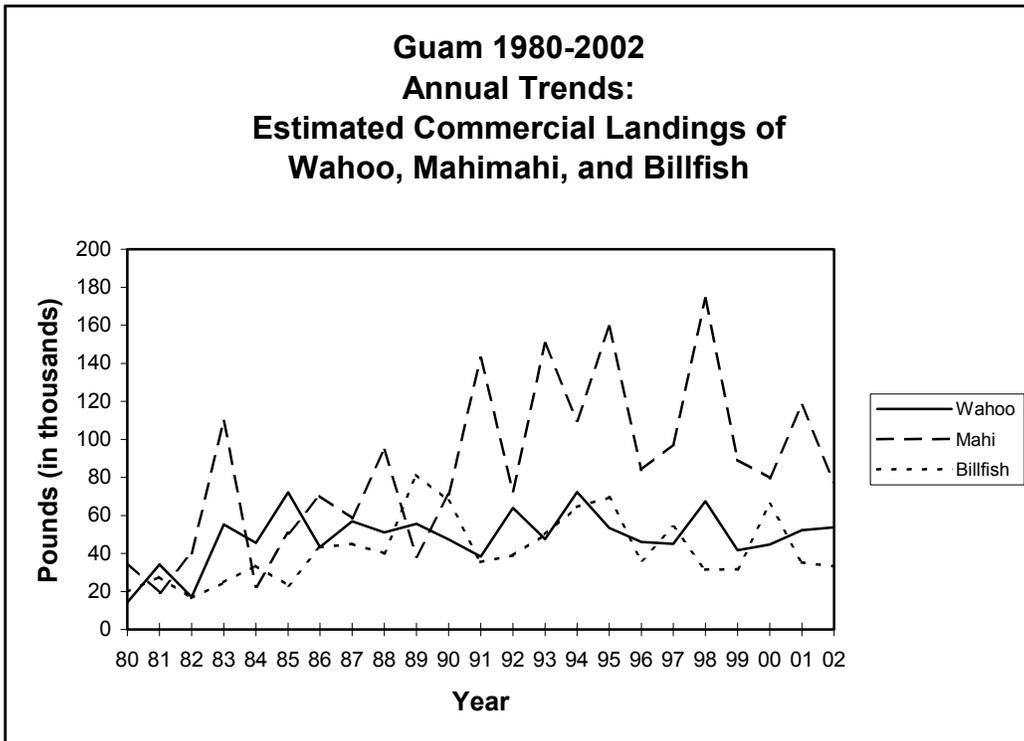


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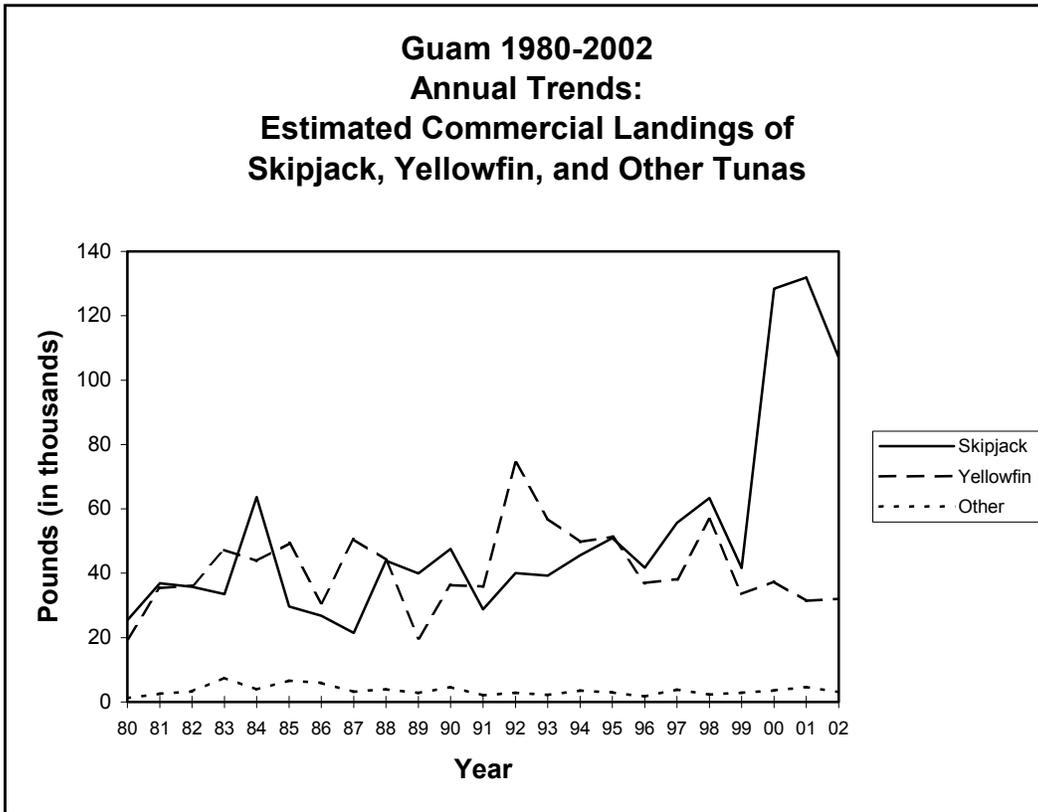


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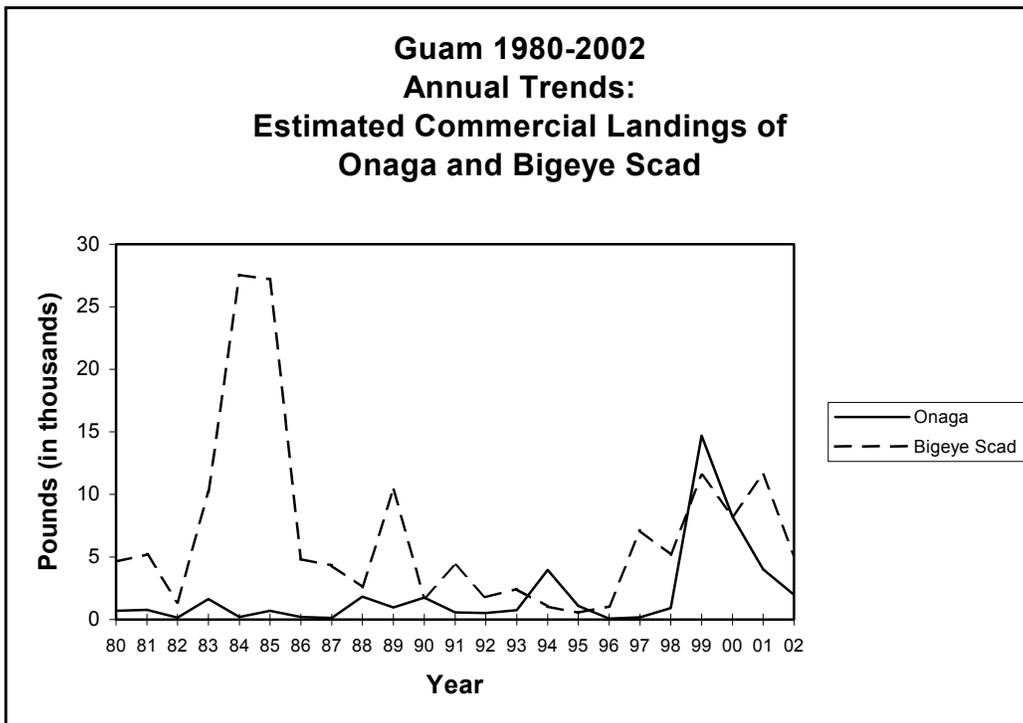


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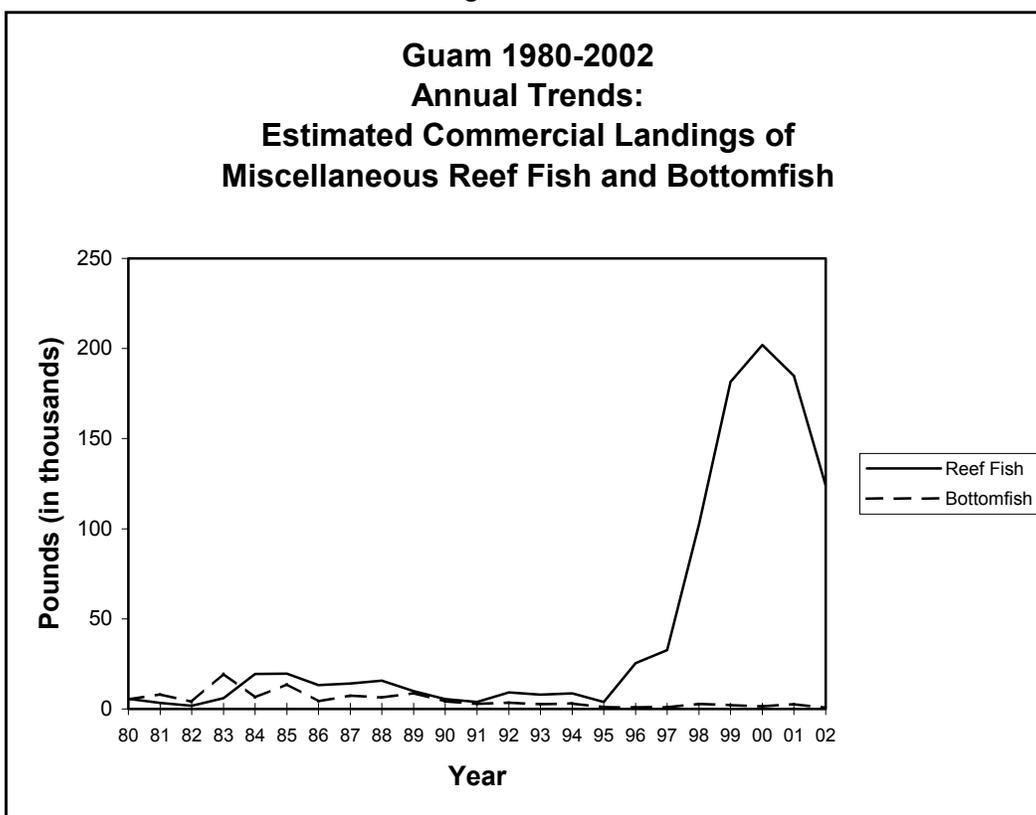


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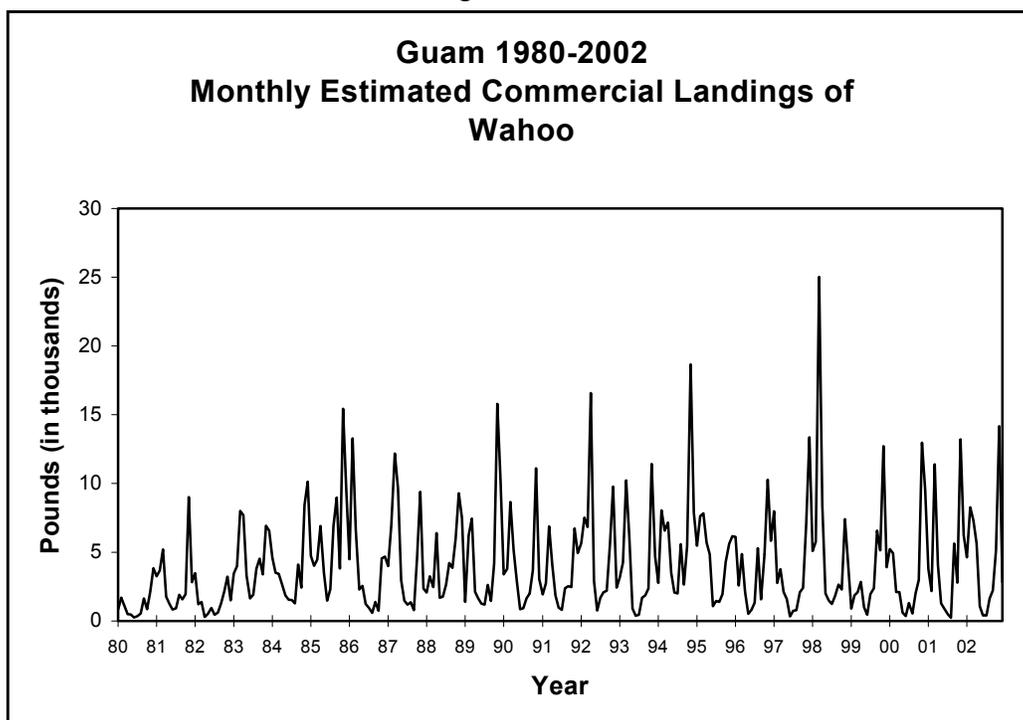


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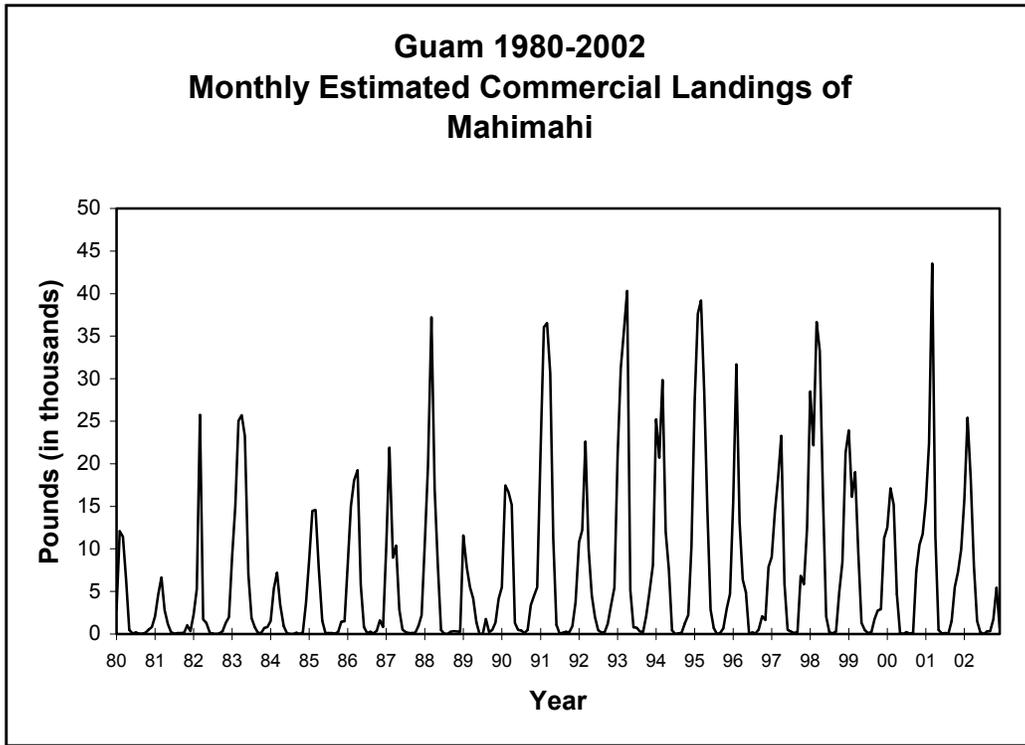


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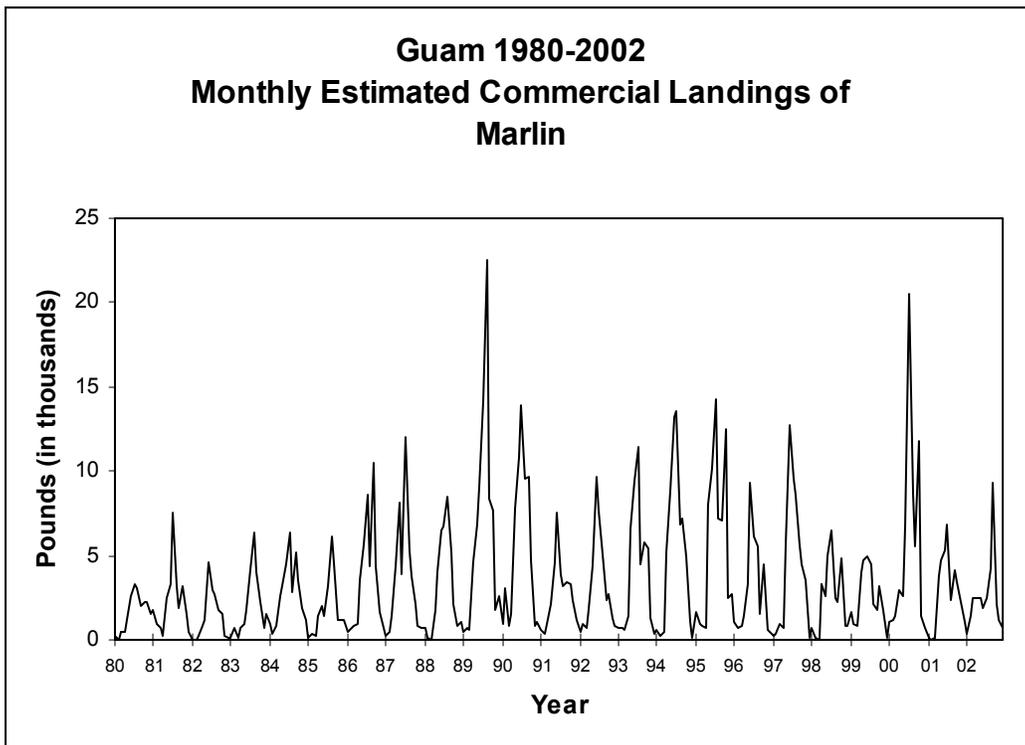


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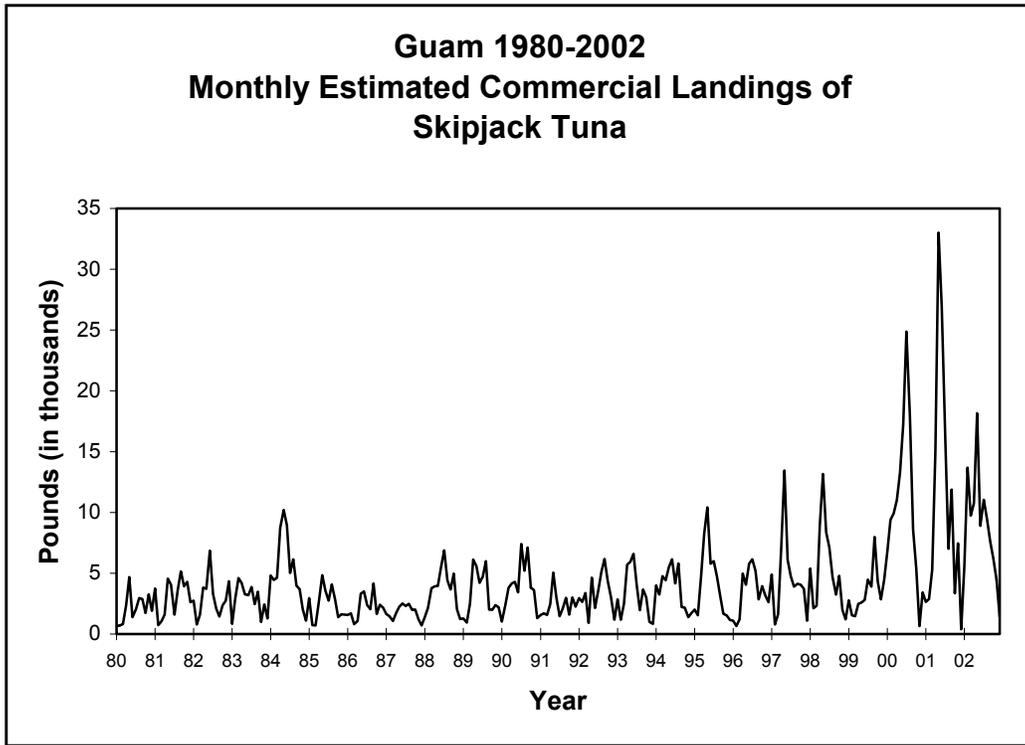


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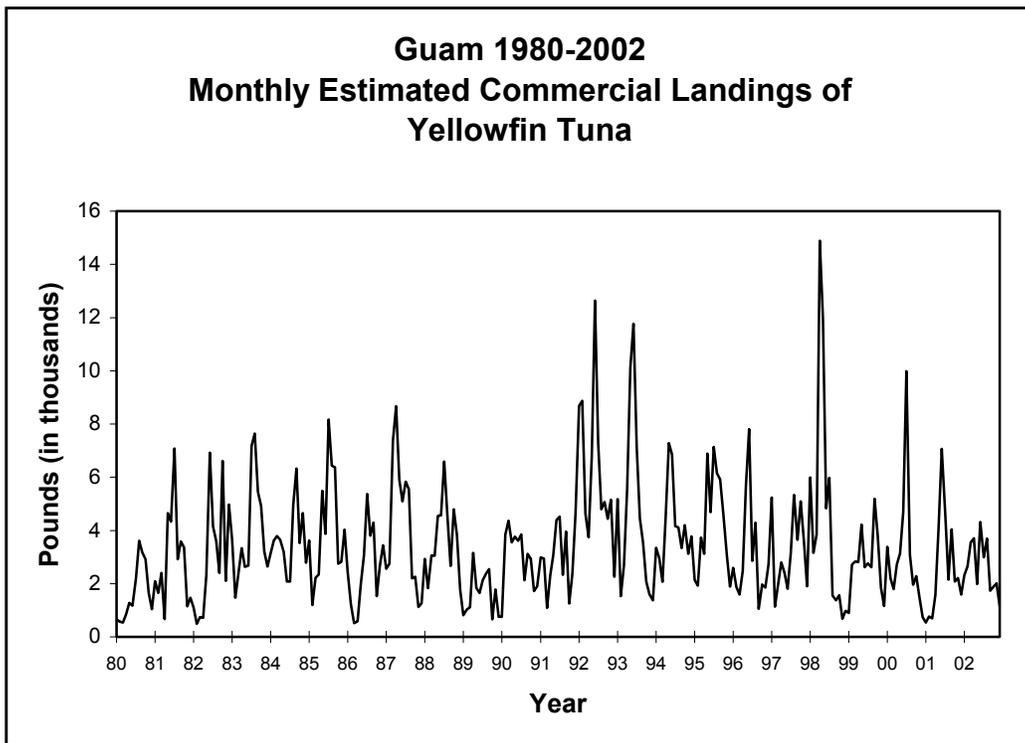


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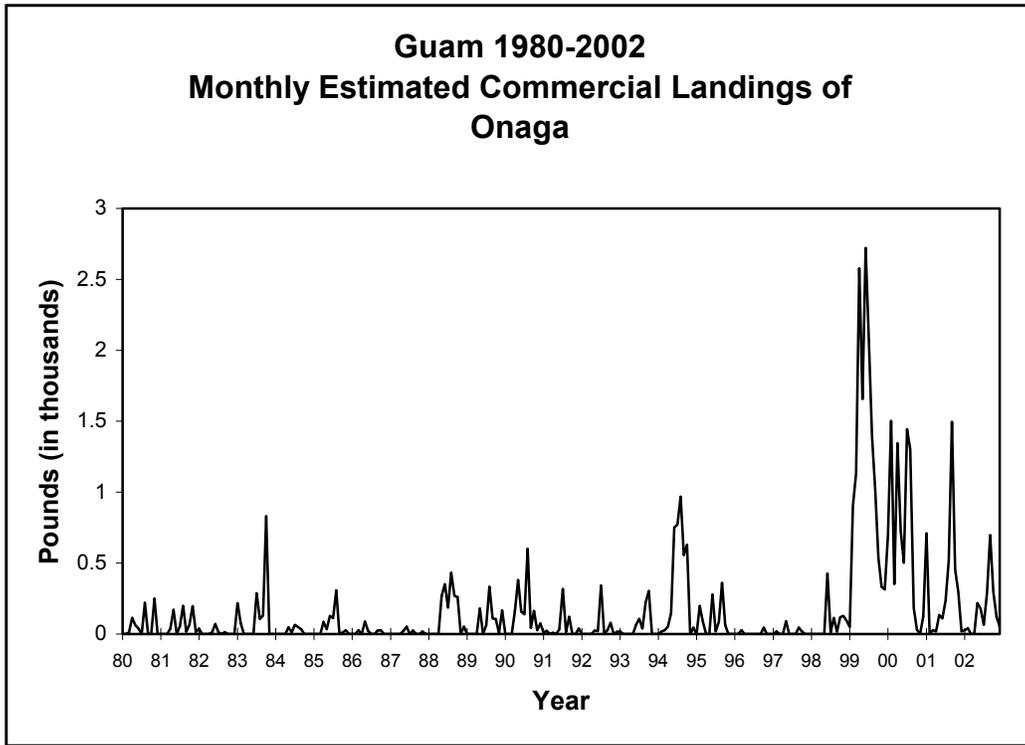


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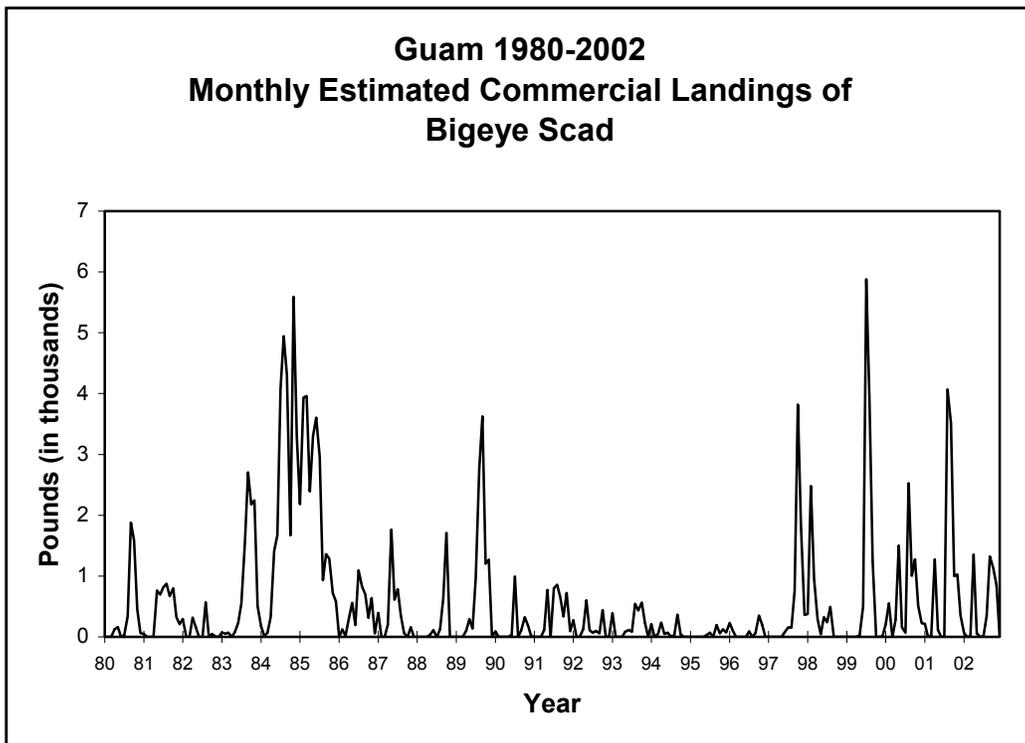


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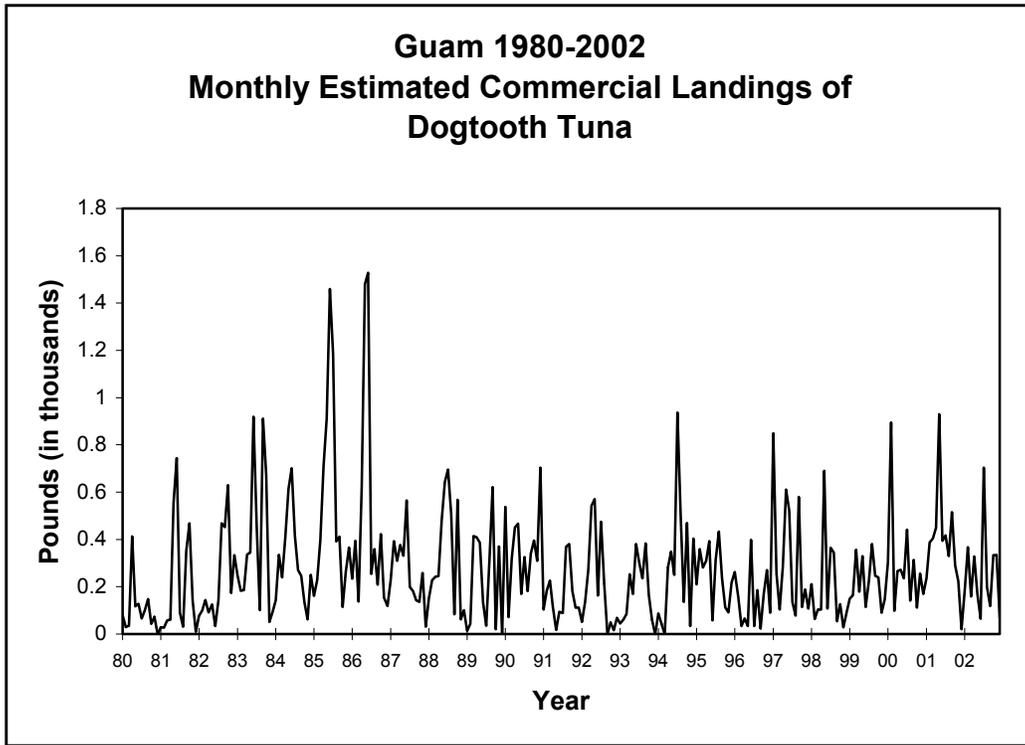


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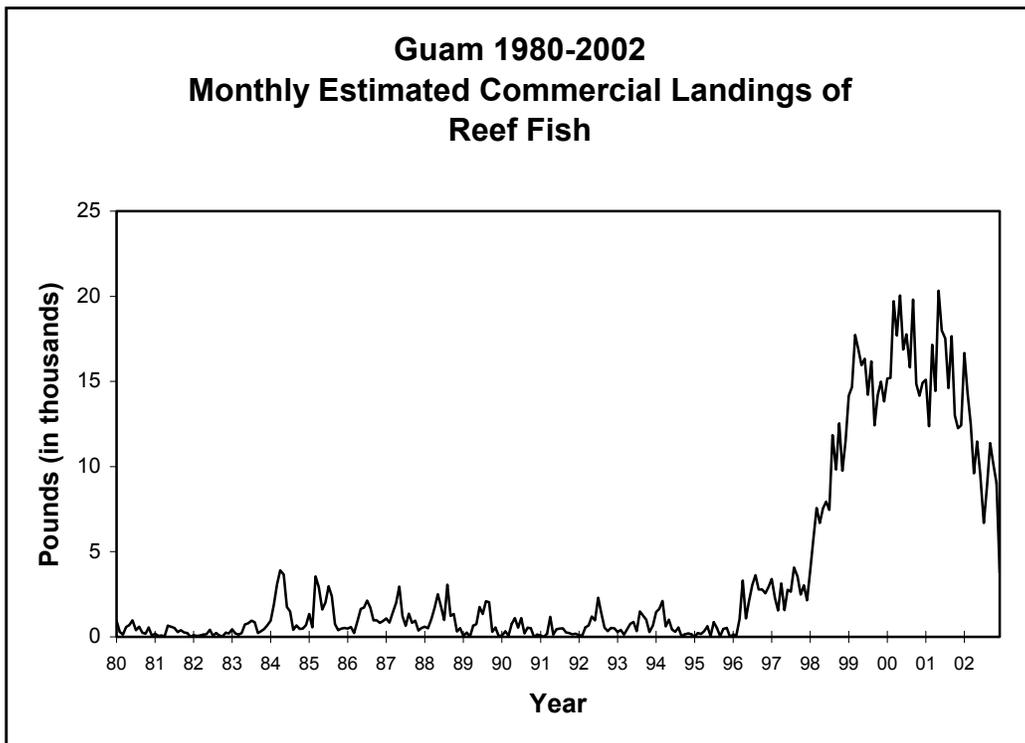
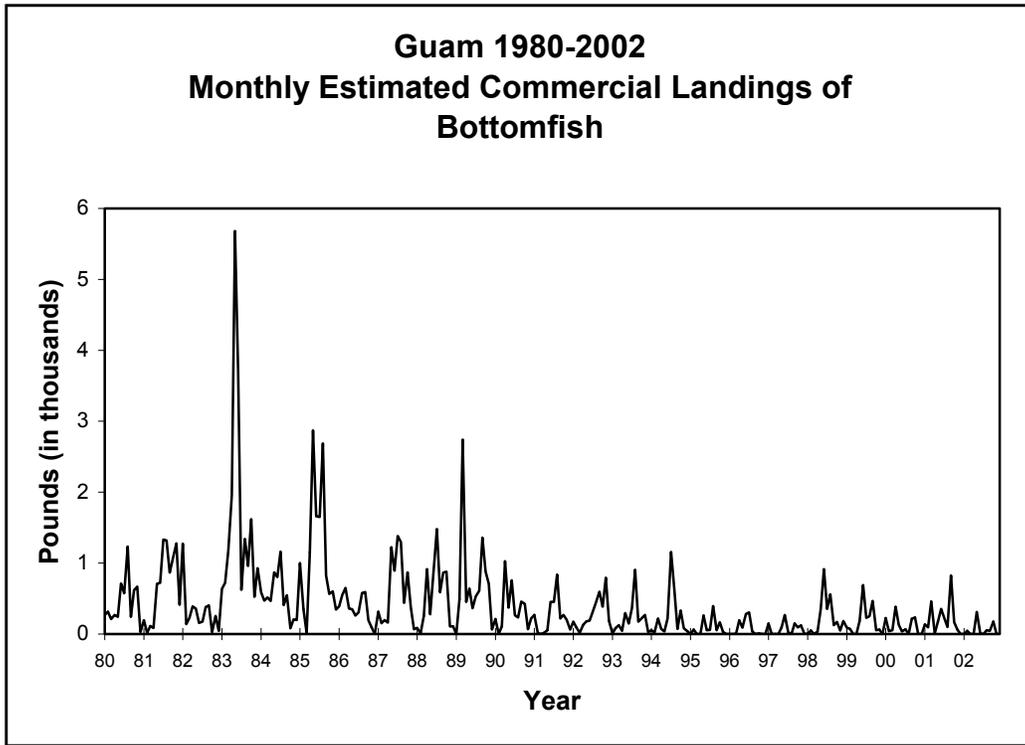


Figure IV.4.10



STATE OF HAWAII 2002 FISHERY STATISTICS

Compiled by
Division of Aquatic Resources
and the
Western Pacific Fishery Information Network

June 2004

CONTENTS

	Page
Introduction	V.1
Data Collecting System	V.2
Data Processing System	V.3
Data Reporting System	V.3
Tables and Figures	V.7

LIST OF HAWAII SUMMARY TABLES

Table	Title	Page
V.1.1	Hawaii 2002 Reported Commercial Landings	V.7
V.1.2	Hawaii January 2002 Reported Commercial Landings	V.10
V.1.3	Hawaii February 2002 Reported Commercial Landings	V.12
V.1.4	Hawaii March 2002 Reported Commercial Landings	V.14
V.1.5	Hawaii April 2002 Reported Commercial Landings	V.16
V.1.6	Hawaii May 2002 Reported Commercial Landings	V.18
V.1.7	Hawaii June 2002 Reported Commercial Landings	V.20
V.1.8	Hawaii July 2002 Reported Commercial Landings	V.22
V.1.9	Hawaii August 2002 Reported Commercial Landings	V.24
V.1.10	Hawaii September 2002 Reported Commercial Landings	V.26
V.1.11	Hawaii October 2002 Reported Commercial Landings	V.28
V.1.12	Hawaii November 2002 Reported Commercial Landings	V.30
V.1.13	Hawaii December 2002 Reported Commercial Landings	V.32

LIST OF HAWAII FIGURES

Figure	Title	Page
V.1.1	Hawaii 2002 Fisheries Categories: Reported Commercial Landings of Pelagic, Bottom, Reef, and Other	V.34
V.1.2	Hawaii 2002 Monthly Reported Landings of Tunas, PMUS, and BMUS	V.34
V.1.3	Hawaii 2002 Monthly Reported Landings of Wahoo, Mahimahi, and Billfish	V.35
V.1.4	Hawaii 2002 Monthly Reported Landings of Skipjack, Bigeye, and Swordfish	V.35
V.1.5	Hawaii 2002 Monthly Reported Landings of Albacore, Yellowfin, and Other Tunas	V.36
V.2.1	Hawaii 1948-2002 Average Monthly Reported Landings of Tunas, PMUS, and BMUS	V.36
V.2.2	Hawaii 1948-2002 Average Monthly Reported Landings of Wahoo and Mahimahi	V.37
V.2.3	Hawaii 1948-2002 Average Monthly Reported Landings of Striped and Blue Marlin	V.37
V.2.4	Hawaii 1948-2002 Average Monthly Reported Landings of Skipjack Tuna, Bigeye Tuna, and Swordfish	V.38
V.2.5	Hawaii 1948-2002 Average Monthly Reported Landings of Opakapaka, Onaga, and Uku	V.38
V.2.6	Hawaii 1948-2002 Average Monthly Reported Landings of Albacore, Yellowfin and Other Tuna	V.39
V.2.7	Hawaii 1948-2002 Average Monthly Reported Landings of Bigeye and Mackerel Scad	V.39
V.2.8	Hawaii 1948-2002 Average Monthly Reported Landings of Spiny Lobster and Saltwater Shrimp	V.40
V.3.1	Hawaii 1979-2002 Annual Trend of Fisheries Categories: Reported Commercial Landings of Pelagic, Bottom, Reef, and Other	V.40
V.3.2	Hawaii 1948-2002 Annual Trends: Total Reported Commercial Landings	V.41
V.3.3	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Tunas, PMUS, and BMUS Landings	V.41
V.3.4	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Wahoo and Mahimahi	V.42
V.3.5	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Albacore, Yellowfin, and Other Tunas	V.42
V.3.6	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Skipjack, Bigeye, and Swordfish	V.43

LIST OF HAWAII FIGURES (cont.)

Figure	Title	Page
V.3.7	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Striped and Blue Marlin	V.43
V.3.8	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Opakapaka, Onaga, and Uku	V.44
V.3.9	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Bigeye and Mackerel Scad	V.44
V.3.10	Hawaii 1948-2002 Annual Trends: Reported Commercial Landings of Spiny Lobster and Saltwater Shrimp	V.45
V.4.1	Hawaii 1986-2002 Monthly Reported Commercial Landings of Yellowfin Tuna	V.45
V.4.2	Hawaii 1986-2002 Monthly Reported Commercial Landings of Skipjack Tuna	V.46
V.4.3	Hawaii 1986-2002 Monthly Reported Commercial Landings of Bigeye Tuna	V.46
V.4.4	Hawaii 1986-2002 Monthly Reported Commercial Landings of Opakapaka	V.47
V.4.5	Hawaii 1986-2002 Monthly Reported Commercial Landings of Bigeye Scad	V.47
V.4.6	Hawaii 1986-2002 Monthly Reported Commercial Landings of Mahimahi	V.48
V.4.7	Hawaii 1986-2002 Monthly Reported Commercial Landings of Striped Marlin	V.48
V.4.8	Hawaii 1986-2002 Monthly Reported Commercial Landings of Wahoo	V.49
V.4.9	Hawaii 1986-2002 Monthly Reported Commercial Landings of Onaga	V.49
V.4.10	Hawaii 1986-2002 Monthly Reported Commercial Landings of Blue Marlin	V.50
V.4.11	Hawaii 1986-2002 Monthly Reported Commercial Landings of Swordfish	V.50
V.4.12	Hawaii 1986-2002 Monthly Reported Commercial Landings of Albacore	V.51
V.4.13	Hawaii 1986-2002 Monthly Reported Commercial Landings of Spiny Lobster	V.51
V.4.14	Hawaii 1986-2002 Monthly Reported Commercial Landings of Saltwater Shrimp	V.52

STATE OF HAWAII 2002 FISHERY STATISTICS

INTRODUCTION

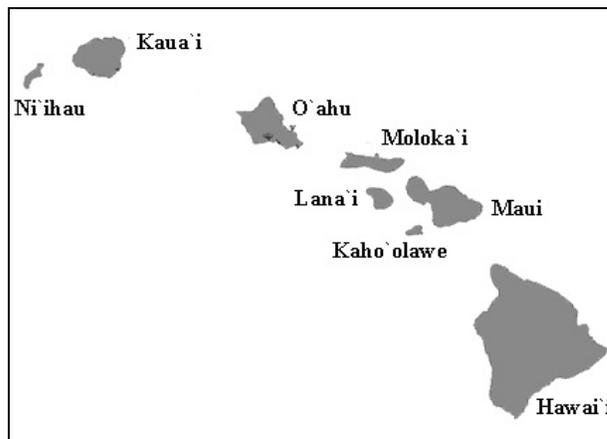
The Hawaiian Archipelago stretches northwestward over 1,500 miles.

Location: 19° N latitude, 155° W longitude to about 28° N latitude and 178° W longitude.

Islands: Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau (comprise over 99% of the total land area)

Population: 1.24 million (*The World Fact Book*, 2003)

Commercial Catch Breakdown (lbs):
over 82% on Oahu, about 14% on Hawaii, 1% on Kauai, 2% on Maui, and less than 1% on other islands



Hawaiian Islands; copied and modified from:
http://satftp.soest.hawaii.edu/space/hawaii/maps/All_Islands_map.710x509.gif;
SOEST Satlab Server

The Department of Land and Natural Resources' Hawaii Division of Aquatic Resources (HDAR) has been collecting statistics on Hawaii's commercial fisheries for over 50 years.

The fisheries of the State of Hawaii are quite diverse; they vary from shore-based algae harvesting by hand to large-vessel fisheries such as longlining and lobster fishing. There are several major fisheries: tuna fishing through various methods, lobster trapping, hook-and-line bottom fishing for the grouper-snapper-jack complex, net fishing for species such as the bigeye scad, and trolling for such pelagic species as marlin, wahoo, and mahimahi. In 2001, prohibitions were placed on landing shark fins without their associated carcasses and on making shallow-sets with longline gear to target swordfish. Since then, shark and swordfish catches have dropped dramatically, and longline effort has significantly shifted from swordfish to tunas. The number of swordfish-directed trips has declined from 319 in 1983 to 0 in 2002, and tuna-directed effort has increased from 458 in 1992 to 1,162 in 2002.

Commercial fishing (i.e., selling catches or providing charter fishing services) in Hawaii requires purchasing a commercial marine fishing license. In 2002, there were about 3,195 licensed commercial fishermen. The summary 2002 data provided in this document are current as of April 2004 and were created from a combination of fishery

reporting forms (including federal longline logbooks) and HDAR fisherman and dealer reporting forms processed through their Fisherman Reporting System (FRS) and Dealer Reporting System (DRS). It is believed to represent over 95% of what may eventually be submitted and processed.

DATA COLLECTING SYSTEM

All holders of a Commercial Marine License (CML) are required by state law to report on their fishing activity. In the past, catch and sales data were recorded on fishery reporting forms and processed in the FRS. In October 2002, HDAR implemented new forms that no longer required sales information reporting as a trade-off for requiring collection of improved catch, effort, and bycatch statistics. The FRS was modified to accommodate the new forms.

Sales information is now obtained directly from the DRS that HDAR implemented in 2000. Its coverage has grown, and it is a better representation of total commercial landings than the FRS.

Several different forms are used for data collection because of the diversity of fishing methods and the need to obtain specific information on some of these methods. The majority of commercial fishermen use the "Monthly Fishing Report," a replacement for the old General Fish Catch Report (C-3 Form). This form collects data on fishing catch and effort for each day, method, and area fished.

Information collected includes:

- Fisherman's name and commercial license number
- Boat's name and its registration/USCG number
- Month and year fished
- Day fished
- Charter trip (y/n)
- Buoy or area fished
- Fishing method
- Hours fished per method/Area
- Number of net sets
- Number of fishing lines, traps, or net length
- Port of landing
- Species name
- Number landed
- Pounds landed
- Number lost
- Number released

Other data collection forms include the Net, Trap and Dive Activity Report, Tuna Handline Trip Report, Deep Sea Handline Trip Report, Aku Boat Report, NWHI Bottomfish Trip Sales Report, and NWHI Bottomfish Trip Daily Log. Commercial collectors of tropical marine fish are required to have an aquarium permit in addition to their commercial marine license, and they are required to report monthly on the C-6 Aquarium Fish Catch Report. Aquarium fish catches, however, are not included in this report's statistics.

Some of the advantages of a mandatory fisherman reporting system are its relative efficiency, low cost, the potential for excellent percent coverage, and the amount of information that can be collected directly from the fishermen. The major disadvantage is that it places the responsibility for data recording and timely data submission on the fishermen.

The assumption is made that the data submitted by the fishermen are complete and accurate. The HDAR continually attempts to improve the quality of data and decrease the time delays in receiving and processing the data. No real measurement is available for what percent of the total commercial catch is actually reported to HDAR, but estimates have ranged from about 10% to over 99%, depending on the species and fishery. The overall percent coverage was probably over 80% in 2002.

DATA PROCESSING SYSTEM

When HDAR receives various data reporting forms, staff code and edit the data before keypunching. Forms that fail initial editing are returned to the fishermen for correction and resubmission, or minor problems may be cleared up with fishermen over the telephone. Delinquency notices are sent to fishermen who fall more than a few months behind in their reporting. Once the data are keypunched, HDAR staff use computer-generated reports to verify and correct errors in the database. When the database is considered to be reasonably complete and error free, it is ready for use in producing various summary catch reports.

DATA REPORTING SYSTEM

More than 150 marine species and species groups are recorded in HDAR's monthly landings reports, many of which are insignificant in the total catch. To help reduce this document's size and improve the usability of the tables, WPacFIN staff combined some of the less important species, reorganized the order of presentation, created a new species coding system, and translated all records in the database. The new coding system has 100 species and species groups based on flexible ecological and phylogenetic criteria. All of the commercially important pelagic and bottomfish species or unique species groups have individual codes and are reported separately. Marine pond catches are included in the species totals, but make up less than 0.4% of the total landings for each year.

The monthly and annual reports included in this document contain the common name, pounds caught, pounds sold, value rounded to the nearest dollar, and the average price per pound for each species. Each monthly report contains a subtotal for the sum of all species for that month. Several types of graphs are also included. Please note that some of the charts in this volume are new or modified from earlier volumes.

The following species, species groups, and abbreviations are used in the tables and graphs of Hawaii's fishery statistics:

Note: Many of the species included in this report have been re-categorized over the years. For example, the Magnuson Fishery Conservation and Management Act of 1976 was amended in 1992 to include tunas in the PMUS category. However, this FSWP volume will maintain the original species categorizations from previous volumes for comparative purposes. As such, tunas are kept in a separate category.

I. Pelagic Management Unit Species (PMUS)

Mahimahi (dolphin)	Wahoo
Blue Marlin	Black Marlin
Striped Marlin	Shortnose Spearfish
Sailfish	Broadbill Swordfish
Sharks	Billfish (misc.)

II. Bottomfish Management Unit Species (BMUS)

Deep Water Jacks (misc.)	Amberjack
Pig-lipped Ulua (jack)	White Ulua
Hawaiian Grouper	Blue-lined Snapper
Ehu (red snapper)	Gindai (flower snapper)
Kalekale (pink snapper)	Lehi (silverjaw snapper)
Onaga (long tailed snapper)	Opakapaka (pink snapper)
Uku (gray snapper)	Snappers

III. Billfish

Billfish	Blue Marlin
Black Marlin	Striped Marlin
Shortnose Spearfish	Sailfish
Broadbill Swordfish	

IV. Tunas

Other Tunas	Skipjack Tuna
Yellowfin Tuna	Albacore
Bigeye Tuna	

V. Other Tunas

Misc. Tunas
Frigate Tuna

Bluefin Tuna
Kawakawa

VI. Fisheries Categories

A. Pelagic Species

All PMUS and tuna species including the following:

Rainbow Runner	Barracuda
Japanese Mackerel	Frigate Tuna
Ocean Sunfish	Ocean Moonfish

B. Bottomfish

All BMUS plus the following:

Blue Crevally	Dobe Ulua
Paapaa Ulua	Blue Spot Grouper
Porgy	

C. Reef Fish

Reef Jacks (misc.)	Squirrelfish
Trumpetfish	Scorpionfish
Mountain Bass	Bigeyes
Cardinalfish	Goatfish
Rudderfish	Butterflyfish
Damselfish	Hawkfish
Tipapia	Wrasse
Parrotfish	Gobies
Surgeonfish-Tangs	Flounders
Triggerfish	Filefish
Pufferfish	

D. Other

Miscellaneous	Rays
Eels	Bigeye Scad (akule)
Mackerel scad (opelu)	Leatherback
Anchovy	Ten pounder

D.	Bonefish	Herring-sardine
	Other (cont.)	
	Milkfish	Flyingfish
	Needlefish	Halfbeaks
	Threadfin	Mullet
	Pomfret	Snake Mackerel
	Freshwater Fish	Spiny Lobster
	Slipper Lobster	Crabs
	Shrimp (freshwater)	Shrimp (saltwater)
	Octopus	Squid
	Limpets (saltwater)	Limpets (freshwater)
	Clams	Stoney Corals
	Precious Corals	Sea Urchins
	Sea Cucumbers	Sea Turtles
	Algae	

V.7

Table V.1.1

Hawaii 2002 Annual Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	4,221	4,221	\$9,652	\$2.29
Sharks	444,179	263,836	\$108,245	\$0.41
Eels	805	768	\$966	\$1.26
Alfonsin	11	11	\$32	\$2.81
Bigeye scad (akule)	607,943	315,939	\$583,098	\$1.85
Mackerel scad	325,636	249,347	\$465,568	\$1.87
Leatherback	800	302	\$458	\$1.52
Anchovy	8	-	\$0	\$0.00
Ten pounder	518	138	\$158	\$1.14
Bonefish	4,459	4,029	\$4,063	\$1.01
Herring/sardine	20	-	\$0	\$0.00
Milkfish	1,821	1,643	\$1,820	\$1.11
Flying fish	4	4	\$7	\$2.00
Needlefish	258	222	\$325	\$1.46
Halfbeaks	185	8	\$9	\$1.13
Threadfin	265	189	\$867	\$4.60
Mullet	9,360	7,614	\$24,544	\$3.22
Pomfret	501,498	489,797	\$675,062	\$1.38
Oilfish	204,063	203,342	\$289,760	\$1.43
Jacks (misc)	21,589	2,715	\$11,362	\$4.18
Amberjack	12,621	966	\$883	\$0.91
Blue crevally	6,514	5,835	\$9,938	\$1.70
Pig-lipped ulua	32,404	30,645	\$48,553	\$1.58
Dobe ulua	610	429	\$665	\$1.55
Paapaa ulua	4,181	3,214	\$6,669	\$2.08
White ulua	13,966	13,245	\$22,168	\$1.67
Black ulua	4,333	4,111	\$6,251	\$1.52
Hawaiian Grouper	39,202	37,540	\$153,801	\$4.10
Blue spot grouper	691	284	\$885	\$3.11
Snappers	2,436	2,352	\$6,601	\$2.81
Blue lined snapper	53,719	51,675	\$55,110	\$1.07
Ehu (red snapper)	29,747	29,359	\$122,152	\$4.16
Gindai (flower snapper)	5,152	4,428	\$13,525	\$3.05
Kalekale(pink snapper)	17,713	17,486	\$56,013	\$3.20
Lehi (silverjaw)	10,451	10,264	\$33,157	\$3.23
Onaga (red snapper)	135,958	135,245	\$739,032	\$5.46
Opakapaka (pink snapper)	158,063	154,310	\$765,599	\$4.96
Uku (gray snapper)	122,409	113,116	\$276,761	\$2.45
Snake Mackerel	1	1	\$1	\$1.00
Porgy	3,602	3,520	\$9,202	\$2.61
Reef jacks	133	48	\$141	\$2.96

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Squirrelfish	53,648	52,302	\$172,776	\$3.30
Trumpetfish	135	104	\$158	\$1.51
Scorpionfish	2,916	2,813	\$11,986	\$4.26
Mountain bass	5,473	3,706	\$11,202	\$3.02
Bigeyes	5,458	4,425	\$12,644	\$2.86
Cardinalfish	7	7	\$12	\$1.81
Goatfish	66,727	60,301	\$170,478	\$2.83
Rudderfish	32,101	27,209	\$28,582	\$1.05
Butterflyfish	323	317	\$254	\$0.80
Damselfish	1,676	1,069	\$1,954	\$1.83
Hawkfish	936	850	\$2,059	\$2.42
Tilapia	788	373	\$746	\$2.00
Wrasse	8,255	6,392	\$25,351	\$3.97
Parrotfish	50,097	49,760	\$126,177	\$2.54
Surgeon/tangs	133,228	133,228	\$183,409	\$1.38
Flounders	41	41	\$46	\$1.11
Triggerfish	124	67	\$98	\$1.48
Filefish	2,481	2,340	\$3,178	\$1.36
Pufferfish	2	-	\$0	\$0.00
Other Pelagic Fish	13,604	-	\$0	\$0.00
Rainbow runner	4,844	4,461	\$5,895	\$1.32
Mahimahi (dolphin)	1,384,783	1,373,237	\$2,622,808	\$1.91
Barracudas	22,837	20,024	\$19,424	\$0.97
Wahoo	694,379	659,078	\$1,450,684	\$2.20
Other Tunas	2,875	177	\$303	\$1.72
Skipjack tuna	1,179,098	954,979	\$1,215,948	\$1.27
Yellowfin tuna	2,780,909	2,626,869	\$5,956,136	\$2.27
Albacore	1,676,708	1,641,256	\$1,925,729	\$1.17
Bigeye tuna	10,784,597	10,631,179	\$28,470,485	\$2.68
Kawakawa	12,646	9,024	\$8,952	\$0.99
Blue Fin Tuna	3,274	1,645	\$10,192	\$6.20
Frigate tuna	158	108	\$163	\$1.51
Other Billfish	6,978	98	\$147	\$1.50
Broadbill swordfish	726,027	707,787	\$1,381,363	\$1.95
Blue marlin	1,046,843	873,809	\$1,018,654	\$1.17
Black marlin	41,806	8,077	\$9,382	\$1.16
Striped marlin	623,873	613,840	\$982,496	\$1.60
Shortnose spearfish	327,891	313,797	\$269,151	\$0.86
Sailfish	21,491	11,002	\$15,415	\$1.40
Ocean sunfish	3,063	72	\$19	\$0.26
Ocean moonfish	930,704	912,187	\$1,219,467	\$1.34
Belt Fish	144	-	\$0	\$0.00
Spiny lobster	10,308	9,560	\$121,435	\$12.70

V.9

Table V.1.1 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Slipper lobster	91	58	\$496	\$8.52
Crabs	21,070	15,556	\$64,961	\$4.18
Shrimp (freshwater)	40	-	\$0	\$0.00
Shrimp (saltwater)	3,656	675	\$4,950	\$7.33
Octopus	27,694	26,715	\$77,754	\$2.91
Squid	3,675	2,228	\$5,529	\$2.48
Limpets (saltwater)	13,939	9,404	\$71,107	\$7.56
Limpets (freshwater)	28	28	\$110	\$4.00
Precious corals	11,226	3,936	\$108,240	\$27.50
Sea urchins	43	22	\$45	\$2.05
Sea cucumbers	225	196	\$699	\$3.56
Algae	9,569	8,807	\$57,551	\$6.53
TOTAL	25,537,062	23,947,386	\$52,349,900	\$2.19

V.10

Table V.1.2

Hawaii January 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	295	295	811	\$2.75
Sharks	86,748	36,585	11,923	\$0.33
Eels	52	52	69	\$1.33
Bigeye scad (akule)	92,100	31,702	54,667	\$1.72
Mackerel scad	15,257	9,723	19,383	\$1.99
Leatherback	44	32	39	\$1.24
Ten pounder	6	4	4	\$1.00
Bonfish	149	149	183	\$1.22
Milkfish	8	8	8	\$1.00
Needlefish	13	12	13	\$1.10
Halfbeaks	4	4	5	\$1.26
Threadfin	19	19	117	\$6.08
Mullet	224	35	124	\$3.60
Pomfret	27,117	27,117	42,493	\$1.57
Oilfish	24,158	23,493	21,438	\$0.91
Jacks (misc)	1,285	41	36	\$0.89
Amberjack	1,184	24	36	\$1.50
Blue crevally	312	312	557	\$1.79
Pig-lipped ulua	455	292	839	\$2.87
Dobe ulua	19	19	37	\$2.00
Paapaa ulua	232	232	479	\$2.07
White ulua	1,035	1,035	1,692	\$1.64
Black ulua	187	53	122	\$2.32
Hawaiian Grouper	1,078	1,078	5,025	\$4.66
Blue spot grouper	21	8	25	\$3.13
Snappers	122	91	294	\$3.24
Blue lined snapper	4,125	4,125	4,145	\$1.01
Ehu (red snapper)	2,419	2,415	10,934	\$4.53
Gindai (flower snapper)	230	192	655	\$3.42
Kalekale(pink snapper)	2,121	2,121	6,702	\$3.16
Lehi (silverjaw)	2,313	2,313	8,069	\$3.49
Onaga (red snapper)	10,442	10,442	64,598	\$6.19
Opakapaka (pink snapper)	16,329	16,329	85,159	\$5.22
Uku (gray snapper)	7,279	5,989	19,535	\$3.26
Porgy	388	388	888	\$2.29
Squirrelfish	5,010	4,914	16,144	\$3.29
Trumpetfish	42	42	68	\$1.64
Scorpionfish	254	254	1,106	\$4.36
Mountain bass	639	293	984	\$3.35
Bigeyes	531	379	810	\$2.14
Goatfish	3,232	3,073	11,432	\$3.72
Rudderfish	555	304	380	\$1.25
Butterflyfish	11	11	5	\$0.50
Damselfish	171	61	106	\$1.73
Hawkfish	43	43	98	\$2.28

V.11

Table V.1.2 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Wrasse	755	713	3,237	\$4.54
Parrotfish	5,905	5,905	14,923	\$2.53
Surgeon/tangs	14,521	14,521	19,934	\$1.37
Filefish	227	216	314	\$1.46
Other Pelagic Fish	769	-	-	\$0.00
Rainbow runner	259	222	318	\$1.43
Mahimahi (dolphin)	63,671	59,005	126,674	\$2.15
Barracudas	1,469	1,179	1,644	\$1.39
Wahoo	31,823	29,094	76,587	\$2.63
Other Tunas	42	24	40	\$1.65
Skipjack tuna	53,564	47,971	78,932	\$1.65
Yellowfin tuna	169,901	152,137	362,947	\$2.39
Albacore	33,764	26,282	63,042	\$2.40
Bigeye tuna	792,366	789,291	2,457,332	\$3.11
Kawakawa	984	729	539	\$0.74
Blue Fin Tuna	604	-	-	\$0.00
Frigate tuna	12	-	-	\$0.00
Other Billfish	1,440	-	-	\$0.00
Broadbill swordfish	34,666	32,176	85,627	\$2.66
Blue marlin	65,520	37,766	54,849	\$1.45
Black marlin	462	462	775	\$1.68
Striped marlin	89,690	89,690	140,983	\$1.57
Shortnose spearfish	24,163	22,374	22,390	\$1.00
Sailfish	1,824	296	278	\$0.94
Ocean sunfish	1,495	-	-	\$0.00
Ocean moonfish	63,213	61,818	93,655	\$1.52
Belt Fish	48	-	-	\$0.00
Spiny lobster	1,500	1,500	18,678	\$12.45
Slipper lobster	7	7	53	\$7.65
Crabs	1,592	1,045	4,292	\$4.11
Shrimp (saltwater)	110	-	-	\$0.00
Octopus	1,334	1,334	3,928	\$2.94
Squid	3	1	1	\$1.26
Limpets (saltwater)	1,382	1,012	4,885	\$4.82
Limpets (freshwater)	10	10	39	\$4.00
Sea urchins	9	-	-	\$0.00
Algae	524	434	2,142	\$4.94
TOTAL	1,767,882	1,563,313	4,031,276	\$2.58

V.12

Table V.1.3

Hawaii February 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	452	452	\$967	\$2.14
Sharks	31,879	26,638	\$10,195	\$0.38
Eels	46	46	\$58	\$1.25
Bigeye scad (akule)	13,500	13,500	\$28,258	\$2.09
Mackerel scad	18,575	18,575	\$22,821	\$1.23
Leatherback	67	5	\$5	\$1.00
Ten pounder	21	20	\$20	\$1.00
Bonefish	50	50	\$72	\$1.44
Milkfish	489	489	\$440	\$0.90
Needlefish	43	43	\$67	\$1.56
Halfbeaks	4	4	\$4	\$1.00
Threadfin	56	56	\$174	\$3.09
Mullet	202	59	\$239	\$4.04
Pomfret	33,304	33,304	\$48,906	\$1.47
Oilfish	26,183	26,183	\$36,125	\$1.38
Jacks (misc)	1,081	56	\$136	\$2.45
Amberjack	1,371	51	\$81	\$1.59
Blue crevally	838	838	\$1,263	\$1.51
Pig-lipped ulua	2,896	2,882	\$6,511	\$2.26
Dobe ulua	31	11	\$19	\$1.80
Paapaa ulua	263	263	\$518	\$1.97
White ulua	987	987	\$1,579	\$1.60
Black ulua	127	127	\$271	\$2.13
Hawaiian Grouper	1,825	1,825	\$7,846	\$4.30
Blue spot grouper	51	5	\$24	\$4.50
Snappers	101	101	\$350	\$3.45
Blue lined snapper	3,936	3,505	\$3,727	\$1.06
Ehu (red snapper)	2,381	2,381	\$10,761	\$4.52
Gindai (flower snapper)	247	239	\$884	\$3.70
Kalekale(pink snapper)	1,630	1,630	\$5,697	\$3.50
Lehi (silverjaw)	1,950	1,950	\$6,697	\$3.44
Onaga (red snapper)	15,101	14,626	\$76,582	\$5.24
Opakapaka (pink snapper)	12,117	12,117	\$63,978	\$5.28
Uku (gray snapper)	7,785	6,445	\$18,861	\$2.93
Porgy	301	301	\$747	\$2.48
Squirrelfish	3,037	3,037	\$8,438	\$2.78
Scorpionfish	306	306	\$1,321	\$4.31
Mountain bass	208	98	\$457	\$4.65
Bigeyes	190	190	\$522	\$2.75
Goatfish	3,739	3,688	\$11,739	\$3.18
Rudderfish	3,419	609	\$901	\$1.48

V.13

Table V.1.3 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Butterflyfish	13	13	\$7	\$0.50
Damselfish	43	43	\$79	\$1.85
Hawkfish	30	30	\$77	\$2.54
Tilapia	85	-	\$0	\$0.00
Wrasse	680	575	\$2,912	\$5.07
Parrotfish	3,325	3,325	\$8,151	\$2.45
Surgeon/tangs	8,352	8,352	\$11,273	\$1.35
Flounders	3	3	\$3	\$1.00
Filefish	248	248	\$365	\$1.48
Other Pelagic Fish	1,394	-	\$0	\$0.00
Rainbow runner	327	272	\$362	\$1.33
Mahimahi (dolphin)	75,641	74,736	\$162,914	\$2.18
Barracudas	1,203	846	\$818	\$0.97
Wahoo	30,925	30,925	\$88,769	\$2.87
Other Tunas	99	-	\$0	\$0.00
Skipjack tuna	29,781	23,766	\$47,418	\$2.00
Yellowfin tuna	270,481	248,495	\$486,820	\$1.96
Albacore	45,663	40,836	\$82,425	\$2.02
Bigeye tuna	854,970	854,814	\$2,534,301	\$2.96
Kawakawa	675	556	\$409	\$0.74
Blue Fin Tuna	302	183	\$941	\$5.14
Frigate tuna	2	-	\$0	\$0.00
Other Billfish	1,530	-	\$0	\$0.00
Broadbill swordfish	124,318	123,545	\$253,362	\$2.05
Blue marlin	82,913	66,117	\$91,951	\$1.39
Black marlin	1,165	1,165	\$2,022	\$1.74
Striped marlin	64,529	64,529	\$108,619	\$1.68
Shortnose spearfish	30,774	30,472	\$26,326	\$0.86
Sailfish	1,238	397	\$454	\$1.14
Ocean moonfish	47,354	46,007	\$94,480	\$2.05
Belt Fish	48	-	\$0	\$0.00
Spiny lobster	871	871	\$10,997	\$12.62
Slipper lobster	7	4	\$40	\$11.30
Crabs	1,399	841	\$3,109	\$3.70
Shrimp (saltwater)	347	78	\$571	\$7.32
Octopus	1,976	1,976	\$5,584	\$2.83
Limpets (saltwater)	731	499	\$4,645	\$9.31
Algae	946	946	\$3,694	\$3.91
TOTAL	1,875,176	1,803,156	\$4,412,154	\$2.45

V.14

Table V.1.4

Hawaii March 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	145	145	\$414	\$2.86
Sharks	31,400	26,650	\$15,556	\$0.58
Eels	87	87	\$94	\$1.08
Bigeye scad (akule)	41,463	18,427	\$36,512	\$1.98
Mackerel scad	26,226	16,097	\$32,546	\$2.02
Leatherback	41	35	\$52	\$1.47
Ten pounder	34	34	\$36	\$1.05
Bonfish	1,403	1,403	\$1,405	\$1.00
Milkfish	438	357	\$354	\$0.99
Needlefish	14	4	\$6	\$1.50
Threadfin	25	20	\$85	\$4.22
Mullet	1,217	830	\$2,848	\$3.43
Pomfret	54,345	54,345	\$72,750	\$1.34
Oilfish	24,552	24,552	\$36,260	\$1.48
Jacks (misc)	2,422	22	\$58	\$2.64
Amberjack	1,034	77	\$103	\$1.34
Blue crevally	513	513	\$899	\$1.75
Pig-lipped ulua	3,162	2,856	\$6,226	\$2.18
Dobe ulua	60	60	\$105	\$1.75
Paapaa ulua	531	383	\$685	\$1.79
White ulua	1,912	1,912	\$3,023	\$1.58
Black ulua	1,521	1,521	\$2,005	\$1.32
Hawaiian Grouper	3,196	3,057	\$14,022	\$4.59
Blue spot grouper	106	21	\$76	\$3.68
Snappers	139	121	\$420	\$3.48
Blue lined snapper	5,421	5,421	\$5,586	\$1.03
Ehu (red snapper)	3,192	3,192	\$14,012	\$4.39
Gindai (flower snapper)	549	468	\$1,838	\$3.93
Kalekale (pink snapper)	1,997	1,997	\$8,222	\$4.12
Lehi (silverjaw)	1,357	1,355	\$4,699	\$3.47
Onaga (red snapper)	13,480	13,480	\$81,085	\$6.02
Opakapaka (pink snapper)	14,400	14,400	\$83,246	\$5.78
Uku (gray snapper)	9,665	9,368	\$27,459	\$2.93
Porgy	263	263	\$687	\$2.61
Squirrelfish	4,164	3,912	\$12,823	\$3.28
Trumpetfish	16	-	\$0	\$0.00
Scorpionfish	246	246	\$1,107	\$4.50
Mountain bass	246	89	\$285	\$3.19
Bigeyes	445	269	\$712	\$2.65
Goatfish	8,532	8,532	\$23,111	\$2.71
Rudderfish	819	818	\$975	\$1.19

V.15

Table V.1.4 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Butterflyfish	8	8	\$4	\$0.50
Damselfish	92	6	\$13	\$2.15
Hawkfish	108	91	\$208	\$2.28
Tilapia	55	-	\$0	\$0.00
Wrasse	798	522	\$2,655	\$5.09
Parrotfish	4,724	4,724	\$12,302	\$2.60
Surgeon/tangs	10,622	10,622	\$14,429	\$1.36
Triggerfish	65	65	\$98	\$1.50
Filefish	325	277	\$382	\$1.38
Other Pelagic Fish	481	-	\$0	\$0.00
Rainbow runner	236	236	\$363	\$1.54
Mahimahi (dolphin)	140,070	140,070	\$267,538	\$1.91
Barracudas	1,570	1,570	\$1,947	\$1.24
Wahoo	52,676	49,428	\$139,458	\$2.82
Other Tunas	81	5	\$6	\$1.25
Skipjack tuna	11,263	5,964	\$8,773	\$1.47
Yellowfin tuna	194,600	187,721	\$457,532	\$2.44
Albacore	96,266	96,266	\$150,273	\$1.56
Bigeye tuna	847,830	817,294	\$2,605,324	\$3.19
Kawakawa	731	594	\$510	\$0.86
Blue Fin Tuna	271	271	\$2,791	\$10.30
Frigate tuna	15	-	\$0	\$0.00
Other Billfish	180	-	\$0	\$0.00
Broadbill swordfish	59,429	55,521	\$102,701	\$1.85
Blue marlin	81,527	61,249	\$85,973	\$1.40
Black marlin	298	298	\$406	\$1.36
Striped marlin	70,150	70,150	\$115,510	\$1.65
Shortnose spearfish	48,190	48,190	\$35,736	\$0.74
Sailfish	1,827	552	\$574	\$1.04
Ocean sunfish	65	-	\$0	\$0.00
Ocean moonfish	54,902	54,902	\$101,821	\$1.85
Spiny lobster	995	995	\$11,455	\$11.52
Slipper lobster	22	22	\$188	\$8.46
Crabs	2,132	1,447	\$5,556	\$3.84
Shrimp (saltwater)	697	153	\$1,076	\$7.03
Octopus	2,200	2,200	\$6,531	\$2.97
Limpets (saltwater)	1,152	896	\$5,457	\$6.09
Precious corals	370	-	\$0	\$0.00
Sea cucumbers	3	-	\$0	\$0.00
Algae	1,609	1,255	\$5,302	\$4.22
TOTAL	1,949,411	1,830,900	\$4,635,275	\$2.53

V.16

Table V.1.5

Hawaii April 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	384	384	\$746	\$1.95
Sharks	29,114	25,145	\$10,864	\$0.43
Eels	5	5	\$6	\$1.25
Bigeye scad (akule)	80,759	38,612	\$66,611	\$1.73
Mackerel scad	20,284	12,783	\$25,779	\$2.02
Leatherback	26	26	\$50	\$1.97
Ten pounder	41	41	\$41	\$1.00
Bonefish	1,553	1,553	\$1,450	\$0.93
Milkfish	330	330	\$398	\$1.20
Flying fish	1	1	\$2	\$2.00
Threadfin	28	4	\$19	\$5.50
Mullet	440	285	\$966	\$3.39
Pomfret	30,202	30,202	\$40,543	\$1.34
Oilfish	14,120	14,120	\$27,936	\$1.98
Jacks (misc)	2,350	117	\$156	\$1.33
Amberjack	2,116	116	\$116	\$1.00
Blue crevally	469	469	\$613	\$1.31
Pig-lipped ulua	1,970	1,734	\$2,990	\$1.72
Dobe ulua	151	151	\$276	\$1.84
Paapaa ulua	212	212	\$433	\$2.04
White ulua	588	588	\$828	\$1.41
Black ulua	134	134	\$277	\$2.07
Hawaiian Grouper	3,048	3,048	\$13,008	\$4.27
Blue spot grouper	106	41	\$157	\$3.86
Snappers	213	183	\$676	\$3.69
Blue lined snapper	5,189	5,189	\$5,523	\$1.06
Ehu (red snapper)	4,303	4,303	\$15,778	\$3.67
Gindai (flower snapper)	460	460	\$1,434	\$3.12
Kalekale(pink snapper)	2,278	2,278	\$6,813	\$2.99
Lehi (silverjaw)	1,270	1,254	\$3,780	\$3.02
Onaga (red snapper)	13,540	13,540	\$67,925	\$5.02
Opakapaka (pink snapper)	17,501	17,501	\$83,846	\$4.79
Uku (gray snapper)	9,298	9,172	\$23,170	\$2.53
Porgy	120	120	\$333	\$2.78
Reef jacks	5	5	\$14	\$3.00
Squirrelfish	5,313	5,313	\$17,771	\$3.35
Trumpetfish	8	-	\$0	\$0.00
Scorpionfish	326	271	\$1,203	\$4.44
Mountain bass	1,829	1,829	\$4,604	\$2.52
Bigeyes	407	407	\$1,117	\$2.75
Goatfish	6,480	5,288	\$15,122	\$2.86

Table V.1.5 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,726	2,726	\$3,476	\$1.28
Butterflyfish	14	9	\$7	\$0.76
Damselfish	169	72	\$158	\$2.21
Hawkfish	136	136	\$330	\$2.42
Wrasse	1,190	579	\$1,651	\$2.85
Parrotfish	4,651	4,352	\$11,897	\$2.73
Surgeon/tangs	13,193	13,193	\$18,068	\$1.37
Triggerfish	17	-	\$0	\$0.00
Filefish	404	404	\$549	\$1.36
Other Pelagic Fish	1,250	-	\$0	\$0.00
Rainbow runner	207	207	\$268	\$1.30
Mahimahi (dolphin)	230,371	230,371	\$360,155	\$1.56
Barracudas	1,718	1,468	\$1,780	\$1.21
Wahoo	62,392	62,392	\$138,401	\$2.22
Other Tunas	59	59	\$133	\$2.26
Skipjack tuna	41,953	32,541	\$47,397	\$1.46
Yellowfin tuna	277,986	210,983	\$388,792	\$1.84
Albacore	212,220	211,306	\$286,244	\$1.35
Bigeye tuna	786,906	786,906	\$2,146,677	\$2.73
Kawakawa	1,648	1,460	\$1,570	\$1.08
Frigate tuna	5	-	\$0	\$0.00
Other Billfish	180	-	\$0	\$0.00
Broadbill swordfish	84,152	84,152	\$163,297	\$1.94
Blue marlin	66,778	60,348	\$81,079	\$1.34
Black marlin	1,964	1,964	\$2,259	\$1.15
Striped marlin	58,975	58,975	\$112,386	\$1.91
Shortnose spearfish	30,751	30,616	\$25,024	\$0.82
Sailfish	1,356	1,162	\$1,434	\$1.23
Ocean sunfish	65	6	\$1	\$0.10
Ocean moonfish	67,545	67,545	\$95,666	\$1.42
Spiny lobster	3,355	3,242	\$42,536	\$13.12
Slipper lobster	3	3	\$31	\$9.32
Crabs	4,051	2,253	\$10,188	\$4.52
Shrimp (saltwater)	347	45	\$360	\$8.00
Octopus	1,587	1,587	\$4,655	\$2.93
Squid	35	21	\$53	\$2.50
Limpets (saltwater)	2,280	330	\$2,516	\$7.62
Precious corals	1,840	-	\$0	\$0.00
Sea cucumbers	60	60	\$210	\$3.50
Algae	807	705	\$2,899	\$4.11
TOTAL	2,222,312	2,069,383	\$4,395,520	\$2.12

Table V.1.6

Hawaii May 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	322	322	\$708	\$2.20
Sharks	25,932	22,718	\$8,551	\$0.38
Eels	68	68	\$78	\$1.14
Bigeye scad (akule)	42,506	24,143	\$45,538	\$1.89
Mackerel scad	14,745	9,929	\$19,973	\$2.01
Leatherback	160	113	\$139	\$1.24
Ten pounder	191	5	\$5	\$1.00
Bonfish	390	163	\$202	\$1.24
Milkfish	25	25	\$50	\$2.00
Flying fish	3	3	\$5	\$2.00
Needlefish	9	7	\$9	\$1.38
Halfbeaks	177	-	\$0	\$0.00
Threadfin	67	27	\$142	\$5.25
Mullet	1,125	1,090	\$3,549	\$3.26
Pomfret	29,426	26,637	\$43,524	\$1.63
Oilfish	16,256	16,256	\$26,688	\$1.64
Jacks (misc)	4,138	204	\$353	\$1.73
Amberjack	2,045	18	\$27	\$1.50
Blue crevally	272	272	\$392	\$1.44
Pig-lipped ulua	1,808	1,808	\$1,994	\$1.10
Dobe ulua	6	6	\$11	\$2.00
Paapaa ulua	358	358	\$703	\$1.96
White ulua	1,051	1,051	\$1,938	\$1.84
Black ulua	1,071	1,071	\$1,617	\$1.51
Hawaiian Grouper	3,412	2,645	\$11,605	\$4.39
Blue spot grouper	121	97	\$298	\$3.09
Snappers	238	238	\$866	\$3.64
Blue lined snapper	5,302	5,302	\$5,687	\$1.07
Ehu (red snapper)	2,747	2,747	\$10,850	\$3.95
Gindai (flower snapper)	498	498	\$1,618	\$3.25
Kalekale(pink snapper)	1,064	1,013	\$2,950	\$2.91
Lehi (silverjaw)	310	256	\$790	\$3.09
Onaga (red snapper)	5,028	5,028	\$32,635	\$6.49
Opakapaka (pink snapper)	9,854	9,854	\$54,436	\$5.52
Uku (gray snapper)	16,639	16,625	\$46,007	\$2.77
Porgy	133	133	\$360	\$2.72
Reef jacks	27	23	\$68	\$3.00
Squirrelfish	5,461	4,506	\$15,412	\$3.42
Trumpetfish	17	17	\$24	\$1.44
Scorpionfish	237	218	\$947	\$4.34
Mountain bass	313	83	\$204	\$2.45
Bigeyes	143	143	\$217	\$1.52
Goatfish	6,396	5,077	\$13,752	\$2.71
Rudderfish	2,816	2,132	\$2,238	\$1.05

Table V.1.6 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Butterflyfish	61	61	\$121	\$1.98
Damselfish	93	33	\$69	\$2.07
Hawkfish	142	142	\$333	\$2.35
Wrasse	554	388	\$951	\$2.45
Parrotfish	3,994	3,994	\$10,159	\$2.54
Surgeon/tangs	8,180	8,180	\$11,222	\$1.37
Flounders	3	3	\$3	\$1.00
Triggerfish	2	2	\$1	\$0.50
Filefish	361	279	\$348	\$1.24
Other Pelagic Fish	2,211	-	\$0	\$0.00
Rainbow runner	423	383	\$506	\$1.32
Mahimahi (dolphin)	83,748	83,748	\$202,774	\$2.42
Barracudas	4,714	4,498	\$3,468	\$0.77
Wahoo	125,756	111,087	\$175,922	\$1.58
Other Tunas	1,246	45	\$63	\$1.39
Skipjack tuna	66,347	51,651	\$52,433	\$1.02
Yellowfin tuna	303,480	263,721	\$503,517	\$1.91
Albacore	321,932	313,306	\$276,170	\$0.88
Bigeye tuna	725,763	725,763	\$1,885,335	\$2.60
Kawakawa	1,622	666	\$685	\$1.03
Blue Fin Tuna	1,191	1,191	\$6,460	\$5.42
Frigate tuna	7	-	\$0	\$0.00
Other Billfish	948	-	\$0	\$0.00
Broadbill swordfish	126,167	126,167	\$202,411	\$1.60
Blue marlin	107,627	93,863	\$86,410	\$0.92
Black marlin	1,534	1,534	\$1,296	\$0.85
Striped marlin	75,083	74,593	\$83,908	\$1.12
Shortnose spearfish	35,438	34,658	\$19,092	\$0.55
Sailfish	766	444	\$242	\$0.54
Ocean moonfish	73,582	68,432	\$110,136	\$1.61
Crabs	616	517	\$1,718	\$3.32
Shrimp (saltwater)	639	76	\$584	\$7.68
Octopus	1,573	1,573	\$4,029	\$2.56
Squid	89	62	\$165	\$2.69
Limpets (saltwater)	957	558	\$4,476	\$8.02
Limpets (freshwater)	18	18	\$71	\$4.00
Precious corals	1,960	-	\$0	\$0.00
Algae	1,047	1,047	\$22,860	\$21.83
TOTAL	2,282,777	2,135,606	\$4,025,097	\$1.88

Table V.1.7

Hawaii June 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	288	288	\$652	\$2.26
Sharks	29,755	11,611	\$5,177	\$0.45
Eels	149	149	\$176	\$1.18
Bigeye scad (akule)	85,997	32,174	\$57,072	\$1.77
Mackerel scad	14,504	11,003	\$22,690	\$2.06
Leatherback	9	2	\$2	\$1.19
Ten pounder	72	-	\$0	\$0.00
Bonefish	48	11	\$14	\$1.23
Milkfish	71	70	\$77	\$1.11
Mullet	1,157	1,051	\$3,368	\$3.21
Pomfret	48,981	46,009	\$60,926	\$1.32
Oilfish	11,308	11,308	\$22,224	\$1.97
Jacks (misc)	2,382	165	\$274	\$1.66
Amberjack	599	33	\$50	\$1.50
Blue crevally	363	363	\$708	\$1.95
Pig-lipped ulua	2,562	2,340	\$1,900	\$0.81
Dobe ulua	14	-	\$0	\$0.00
Paapaa ulua	189	189	\$380	\$2.01
White ulua	1,312	1,312	\$2,257	\$1.72
Black ulua	78	78	\$175	\$2.26
Hawaiian Grouper	1,772	1,772	\$7,365	\$4.16
Blue spot grouper	21	16	\$31	\$2.00
Snappers	82	82	\$276	\$3.38
Blue lined snapper	5,000	5,000	\$5,367	\$1.07
Ehu (red snapper)	1,443	1,443	\$5,129	\$3.56
Gindai (flower snapper)	244	244	\$646	\$2.65
Kalekale (pink snapper)	441	441	\$1,307	\$2.97
Lehi (silverjaw)	48	35	\$65	\$1.87
Onaga (red snapper)	5,339	5,339	\$26,872	\$5.03
Opakapaka (pink snapper)	3,612	3,612	\$18,599	\$5.15
Uku (gray snapper)	12,039	12,039	\$20,927	\$1.74
Porgy	159	159	\$341	\$2.15
Squirrelfish	2,872	2,829	\$9,512	\$3.36
Trumpetfish	20	20	\$36	\$1.75
Scorpionfish	176	176	\$678	\$3.86
Mountain bass	353	186	\$674	\$3.63
Bigeyes	311	200	\$524	\$2.62
Goatfish	4,748	4,503	\$12,429	\$2.76
Rudderfish	5,133	5,133	\$5,224	\$1.02
Butterflyfish	39	39	\$28	\$0.72
Damselfish	211	211	\$224	\$1.06

Table V.1.7 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	67	48	\$107	\$2.24
Tilapia	53	-	\$0	\$0.00
Wrasse	295	276	\$804	\$2.91
Parrotfish	2,667	2,667	\$7,281	\$2.73
Surgeon/tangs	8,689	8,689	\$12,290	\$1.41
Flounders	4	4	\$4	\$1.00
Triggerfish	10	-	\$0	\$0.00
Filefish	334	334	\$415	\$1.25
Other Pelagic Fish	1,538	-	\$0	\$0.00
Rainbow runner	301	177	\$231	\$1.31
Mahimahi (dolphin)	47,547	44,491	\$132,624	\$2.98
Barracudas	3,145	3,145	\$2,331	\$0.74
Wahoo	95,146	86,419	\$163,713	\$1.89
Other Tunas	24	10	\$7	\$0.70
Skipjack tuna	133,961	121,003	\$164,325	\$1.36
Yellowfin tuna	262,207	261,558	\$630,751	\$2.41
Albacore	148,531	136,162	\$217,880	\$1.60
Bigeye tuna	579,807	509,983	\$1,662,888	\$3.26
Kawakawa	350	290	\$397	\$1.37
Frigate tuna	2	-	\$0	\$0.00
Other Billfish	900	98	\$147	\$1.50
Broadbill swordfish	93,252	92,230	\$173,970	\$1.89
Blue marlin	139,519	122,294	\$139,646	\$1.14
Black marlin	495	495	\$325	\$0.66
Striped marlin	26,329	24,889	\$40,452	\$1.63
Shortnose spearfish	22,525	22,525	\$18,793	\$0.83
Sailfish	2,342	1,829	\$2,237	\$1.22
Ocean moonfish	44,204	44,204	\$71,350	\$1.61
Crabs	921	423	\$1,607	\$3.80
Shrimp (saltwater)	30	-	\$0	\$0.00
Octopus	2,313	2,313	\$7,122	\$3.08
Squid	30	30	\$103	\$3.48
Limpets (saltwater)	854	412	\$4,520	\$10.96
Precious corals	750	-	\$0	\$0.00
Algae	1,042	887	\$3,020	\$3.40
TOTAL	1,864,083	1,649,518	\$3,753,715	\$2.28

V.22

Table V.1.8

Hawaii July 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	690	690	\$950	\$1.38
Sharks	29,948	13,006	\$5,219	\$0.40
Eels	200	163	\$207	\$1.26
Bigeye scad (akule)	70,492	19,677	\$38,305	\$1.95
Mackerel scad	17,092	16,328	\$32,625	\$2.00
Leatherback	182	12	\$16	\$1.34
Ten pounder	95	-	\$0	\$0.00
Bonefish	66	21	\$16	\$0.74
Milkfish	84	84	\$95	\$1.13
Needlefish	8	6	\$8	\$1.25
Threadfin	2	2	\$9	\$4.50
Mullet	884	774	\$2,450	\$3.17
Pomfret	71,731	67,769	\$58,225	\$0.86
Oilfish	9,846	9,846	\$17,749	\$1.80
Jacks (misc)	3,014	336	\$6,728	\$20.05
Amberjack	409	-	\$0	\$0.00
Blue crevally	539	528	\$1,108	\$2.10
Pig-lipped ulua	3,557	3,156	\$4,932	\$1.56
Paapaa ulua	356	356	\$1,038	\$2.92
White ulua	1,405	1,405	\$2,641	\$1.88
Hawaiian Grouper	3,065	3,016	\$12,585	\$4.17
Blue spot grouper	53	53	\$164	\$3.09
Snappers	163	160	\$556	\$3.48
Blue lined snapper	7,280	6,521	\$6,843	\$1.05
Ehu (red snapper)	1,254	1,254	\$6,108	\$4.87
Gindai (flower snapper)	103	73	\$292	\$3.99
Kalekale (pink snapper)	485	458	\$1,727	\$3.78
Lehi (silverjaw)	187	187	\$681	\$3.65
Onaga (red snapper)	8,207	8,207	\$41,399	\$5.04
Opakapaka (pink snapper)	9,555	9,555	\$40,053	\$4.19
Uku (gray snapper)	15,113	14,715	\$29,559	\$2.01
Snake Mackerel	1	1	\$1	\$1.00
Porgy	451	451	\$1,191	\$2.64
Reef jacks	53	2	\$6	\$3.00
Squirrelfish	3,282	3,282	\$11,037	\$3.36
Scorpionfish	178	160	\$764	\$4.77
Mountain bass	431	39	\$131	\$3.33
Bigeyes	597	157	\$391	\$2.49
Goatfish	4,880	4,459	\$12,864	\$2.88
Rudderfish	4,653	3,507	\$4,153	\$1.18
Butterflyfish	17	17	\$9	\$0.50

V.23

Table V.1.8 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Damselfish	100	74	\$133	\$1.81
Hawkfish	115	77	\$196	\$2.53
Wrasse	423	423	\$1,335	\$3.15
Parrotfish	2,952	2,952	\$8,142	\$2.76
Surgeon/tangs	10,113	10,113	\$12,876	\$1.27
Flounders	10	10	\$10	\$1.00
Triggerfish	5	-	\$0	\$0.00
Filefish	254	254	\$375	\$1.48
Other Pelagic Fish	1,538	-	\$0	\$0.00
Rainbow runner	417	417	\$613	\$1.47
Mahimahi (dolphin)	75,473	75,473	\$200,003	\$2.65
Barracudas	3,777	3,337	\$2,857	\$0.86
Wahoo	104,442	100,027	\$169,311	\$1.69
Other Tunas	236	8	\$20	\$2.50
Skipjack tuna	247,680	223,979	\$281,446	\$1.26
Yellowfin tuna	438,428	438,428	\$1,093,192	\$2.49
Albacore	190,945	190,945	\$203,115	\$1.06
Bigeye tuna	491,489	491,489	\$1,373,976	\$2.80
Kawakawa	946	946	\$1,051	\$1.11
Blue Fin Tuna	302	-	\$0	\$0.00
Other Billfish	360	-	\$0	\$0.00
Broadbill swordfish	87,400	87,400	\$182,292	\$2.09
Blue marlin	174,587	173,784	\$139,875	\$0.80
Black marlin	236	236	\$260	\$1.10
Striped marlin	22,888	16,865	\$31,220	\$1.85
Shortnose spearfish	16,775	16,775	\$17,209	\$1.03
Sailfish	2,622	1,005	\$1,420	\$1.41
Ocean moonfish	52,935	52,935	\$74,241	\$1.40
Crabs	688	588	\$2,378	\$4.04
Octopus	2,445	2,445	\$7,240	\$2.96
Squid	118	38	\$115	\$3.08
Limpets (saltwater)	1,377	1,045	\$14,159	\$13.55
Precious corals	150	-	\$0	\$0.00
Sea cucumbers	49	49	\$170	\$3.50
Algae	785	724	\$3,581	\$4.95
TOTAL	2,203,664	2,083,268	\$4,165,642	\$2.00

Table V.1.9

Hawaii August 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	247	247	\$412	\$1.66
Sharks	23,340	20,374	\$10,119	\$0.50
Eels	109	109	\$151	\$1.39
Bigeye scad (akule)	34,384	11,084	\$25,184	\$2.27
Mackerel scad	30,656	30,656	\$62,214	\$2.03
Leatherback	48	25	\$42	\$1.66
Ten pounder	24	-	\$0	\$0.00
Bonfish	108	48	\$59	\$1.24
Milkfish	122	97	\$120	\$1.24
Needlefish	5	5	\$6	\$1.40
Threadfin	-	-	\$2	\$4.25
Mullet	465	258	\$717	\$2.78
Pomfret	60,108	60,108	\$73,128	\$1.22
Oilfish	6,801	6,801	\$17,723	\$2.61
Jacks (misc)	1,695	555	\$992	\$1.79
Amberjack	836	38	\$57	\$1.50
Blue crevally	596	440	\$798	\$1.81
Pig-lipped ulua	2,473	2,447	\$5,882	\$2.40
Paapaa ulua	170	170	\$321	\$1.89
White ulua	1,366	1,366	\$2,499	\$1.83
Black ulua	185	185	\$324	\$1.75
Hawaiian Grouper	3,785	3,785	\$17,205	\$4.55
Blue spot grouper	35	12	\$23	\$2.00
Snappers	991	991	\$1,962	\$1.98
Blue lined snapper	6,381	6,381	\$6,842	\$1.07
Ehu (red snapper)	1,549	1,503	\$6,917	\$4.60
Gindai (flower snapper)	129	83	\$296	\$3.57
Kalekale(pink snapper)	595	579	\$2,237	\$3.86
Lehi (silverjaw)	318	318	\$816	\$2.56
Onaga (red snapper)	8,013	8,013	\$48,219	\$6.02
Opakapaka (pink snapper)	8,821	8,821	\$47,930	\$5.43
Uku (gray snapper)	9,359	8,676	\$23,081	\$2.66
Porgy	778	778	\$2,222	\$2.86
Reef jacks	29	-	\$0	\$0.00
Squirrelfish	3,998	3,998	\$13,491	\$3.37
Trumpetfish	14	14	\$14	\$1.00
Scorpionfish	189	189	\$808	\$4.28
Mountain bass	405	81	\$280	\$3.46
Bigeyes	278	124	\$329	\$2.66
Goatfish	4,105	4,105	\$12,395	\$3.02

V.25

Table V.1.9 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,865	2,865	\$3,005	\$1.05
Butterflyfish	64	64	\$27	\$0.42
Damselfish	458	458	\$991	\$2.17
Hawkfish	115	102	\$407	\$3.98
Tilapia	90	-	\$0	\$0.00
Wrasse	659	481	\$1,684	\$3.50
Parrotfish	4,964	4,964	\$12,249	\$2.47
Surgeon/tangs	15,616	15,616	\$20,593	\$1.32
Flounders	11	11	\$15	\$1.40
Filefish	52	52	\$54	\$1.05
Other Pelagic Fish	1,298	-	\$0	\$0.00
Rainbow runner	567	533	\$715	\$1.34
Mahimahi (dolphin)	111,505	111,505	\$222,219	\$1.99
Barracudas	1,435	1,435	\$1,548	\$1.08
Wahoo	64,835	63,324	\$151,758	\$2.40
Other Tunas	89	7	\$6	\$0.90
Skipjack tuna	192,747	192,747	\$285,975	\$1.48
Yellowfin tuna	318,889	318,889	\$885,496	\$2.78
Albacore	216,203	216,203	\$230,302	\$1.07
Bigeye tuna	567,823	567,823	\$2,191,401	\$3.86
Kawakawa	827	509	\$460	\$0.91
Frigate tuna	19	11	\$17	\$1.50
Broadbill swordfish	68,803	68,803	\$121,056	\$1.76
Blue marlin	118,334	106,632	\$134,976	\$1.27
Black marlin	1,041	1,041	\$755	\$0.73
Striped marlin	15,025	14,163	\$32,972	\$2.33
Shortnose spearfish	13,954	13,954	\$16,982	\$1.22
Sailfish	1,179	1,053	\$1,951	\$1.85
Ocean moonfish	73,194	69,264	\$108,697	\$1.57
Spiny lobster	17	-	\$0	\$0.00
Crabs	1,153	920	\$2,946	\$3.20
Shrimp (freshwater)	40	-	\$0	\$0.00
Shrimp (saltwater)	272	25	\$200	\$8.00
Octopus	2,785	2,785	\$8,325	\$2.99
Squid	1,342	545	\$1,230	\$2.26
Limpets (saltwater)	1,096	864	\$11,751	\$13.60
Precious corals	1,190	-	\$0	\$0.00
Sea cucumbers	88	88	\$319	\$3.64
Algae	740	740	\$3,687	\$4.99
TOTAL	2,014,891	1,961,937	\$4,840,587	\$2.47

Table V.1.10

Hawaii September 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	311	311	\$786	\$2.53
Sharks	26,986	13,209	\$7,410	\$0.56
Eels	8	7	\$11	\$1.50
Alfonsin	7	7	\$21	\$3.00
Bigeye scad (akule)	14,571	14,571	\$30,753	\$2.11
Mackerel scad	42,750	37,076	\$72,528	\$1.96
Leatherback	101	42	\$96	\$2.28
Ten pounder	17	17	\$35	\$2.00
Bonfish	68	55	\$64	\$1.16
Herring/sardine	20	-	\$0	\$0.00
Milkfish	91	49	\$58	\$1.18
Needlefish	13	4	\$5	\$1.31
Threadfin	11	6	\$40	\$6.79
Mullet	1,811	1,552	\$4,903	\$3.16
Pomfret	33,084	31,490	\$53,399	\$1.70
Oilfish	4,762	4,707	\$10,778	\$2.29
Jacks (misc)	2,213	345	\$592	\$1.71
Amberjack	1,156	88	\$81	\$0.91
Blue crevally	848	848	\$1,421	\$1.68
Pig-lipped ulua	872	872	\$1,673	\$1.92
Dobe ulua	30	8	\$12	\$1.41
Paapaa ulua	212	212	\$415	\$1.96
White ulua	990	990	\$1,592	\$1.61
Black ulua	206	206	\$282	\$1.37
Hawaiian Grouper	5,136	4,779	\$17,331	\$3.63
Blue spot grouper	90	11	\$37	\$3.50
Snappers	164	164	\$455	\$2.78
Blue lined snapper	5,205	5,205	\$5,567	\$1.07
Ehu (red snapper)	2,113	1,906	\$7,890	\$4.14
Gindai (flower snapper)	1,057	640	\$1,672	\$2.61
Kalekale(pink snapper)	1,966	1,832	\$6,128	\$3.35
Lehi (silverjaw)	732	732	\$2,234	\$3.05
Onaga (red snapper)	9,680	9,442	\$52,730	\$5.58
Opakapaka (pink snapper)	14,785	13,733	\$66,959	\$4.88
Uku (gray snapper)	9,367	8,453	\$18,312	\$2.17
Porgy	475	475	\$1,381	\$2.91
Reef jacks	3	3	\$6	\$2.00
Squirrelfish	6,731	6,731	\$23,184	\$3.44
Trumpetfish	4	-	\$0	\$0.00
Scorpionfish	284	284	\$1,046	\$3.68
Mountain bass	183	141	\$449	\$3.19

Table V.1.10 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Bigeyes	548	548	\$1,550	\$2.83
Cardinalfish	4	4	\$8	\$2.00
Goatfish	4,565	4,565	\$13,300	\$2.91
Rudderfish	3,145	3,145	\$2,893	\$0.92
Butterflyfish	34	34	\$16	\$0.47
Damselfish	74	71	\$126	\$1.79
Hawkfish	123	123	\$185	\$1.50
Wrasse	1,196	1,196	\$3,792	\$3.17
Parrotfish	3,299	3,261	\$8,034	\$2.46
Surgeon/tangs	16,026	16,026	\$21,060	\$1.31
Flounders	7	7	\$6	\$0.98
Filefish	40	40	\$52	\$1.32
Other Pelagic Fish	817	-	\$0	\$0.00
Rainbow runner	770	676	\$903	\$1.34
Mahimahi (dolphin)	137,811	134,893	\$234,591	\$1.74
Barracudas	1,315	427	\$466	\$1.09
Wahoo	42,437	42,437	\$111,226	\$2.62
Other Tunas	38	-	\$0	\$0.00
Skipjack tuna	27,303	18,610	\$26,111	\$1.40
Yellowfin tuna	233,988	233,988	\$531,053	\$2.27
Albacore	242,627	242,627	\$206,625	\$0.85
Bigeye tuna	895,768	845,942	\$1,825,470	\$2.16
Kawakawa	2,024	2,024	\$2,096	\$1.04
Frigate tuna	4	4	\$7	\$1.90
Broadbill swordfish	13,967	10,057	\$26,565	\$2.64
Blue marlin	66,258	61,576	\$85,713	\$1.39
Black marlin	155	155	\$155	\$1.00
Striped marlin	13,156	11,937	\$29,776	\$2.49
Shortnose spearfish	14,257	14,028	\$15,494	\$1.10
Sailfish	3,072	2,000	\$3,408	\$1.70
Ocean moonfish	104,854	98,157	\$114,101	\$1.16
Spiny lobster	1,476	1,179	\$15,057	\$12.77
Slipper lobster	17	4	\$30	\$8.50
Crabs	3,508	2,512	\$11,233	\$4.47
Shrimp (saltwater)	572	201	\$1,448	\$7.20
Octopus	4,024	3,045	\$8,732	\$2.87
Squid	1,431	1,066	\$2,518	\$2.36
Limpets (saltwater)	888	792	\$4,465	\$5.64
Precious corals	3,936	3,936	\$108,240	\$27.50
Sea urchins	12	-	\$0	\$0.00
Sea cucumbers	14	-	\$0	\$0.00
Algae	686	686	\$3,383	\$4.93
TOTAL	2,035,355	1,923,177	\$3,812,226	\$1.98

Table V.1.11

Hawaii October 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	144	144	\$407	\$2.82
Sharks	42,792	14,112	\$8,760	\$0.62
Eels	7	7	\$11	\$1.50
Bigeye scad (akule)	44,711	24,589	\$47,036	\$1.91
Mackerel scad	43,403	33,130	\$60,365	\$1.82
Leatherback	16	10	\$16	\$1.57
Anchovy	8	-	\$0	\$0.00
Bonfish	31	28	\$37	\$1.35
Milkfish	144	130	\$215	\$1.65
Needlefish	5	-	\$0	\$0.00
Threadfin	29	29	\$163	\$5.56
Mullet	440	413	\$1,254	\$3.04
Pomfret	44,564	44,564	\$73,660	\$1.65
Oilfish	10,042	10,042	\$20,543	\$2.05
Jacks (misc)	316	181	\$367	\$2.03
Amberjack	166	13	\$20	\$1.50
Blue crevally	805	570	\$940	\$1.65
Pig-lipped ulua	2,279	2,279	\$4,378	\$1.92
Dobe ulua	97	5	\$10	\$2.18
Paapaa ulua	291	195	\$401	\$2.06
White ulua	1,757	1,308	\$1,932	\$1.48
Black ulua	226	226	\$456	\$2.02
Hawaiian Grouper	4,044	4,044	\$15,423	\$3.81
Blue spot grouper	29	13	\$26	\$2.00
Snappers	63	63	\$210	\$3.34
Blue lined snapper	2,743	1,887	\$2,111	\$1.12
Ehu (red snapper)	1,943	1,943	\$8,054	\$4.14
Gindai (flower snapper)	510	482	\$1,214	\$2.52
Kalekale(pink snapper)	1,442	1,442	\$4,565	\$3.17
Lehi (silverjaw)	451	451	\$1,303	\$2.89
Onaga (red snapper)	10,140	10,140	\$52,088	\$5.14
Opakapaka (pink snapper)	12,173	10,710	\$48,768	\$4.55
Uku (gray snapper)	11,326	8,072	\$19,298	\$2.39
Porgy	71	54	\$151	\$2.80
Reef jacks	5	5	\$14	\$3.17
Squirrelfish	3,316	3,316	\$11,164	\$3.37
Trumpetfish	4	4	\$6	\$1.75
Scorpionfish	160	160	\$688	\$4.31
Mountain bass	156	156	\$442	\$2.84
Bigeyes	398	398	\$1,195	\$3.01
Goatfish	3,700	2,489	\$6,092	\$2.45

Table V.1.11 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Rudderfish	2,503	2,503	\$2,619	\$1.05
Damselfish	124	17	\$8	\$0.46
Hawkfish	17	17	\$25	\$1.43
Tilapia	210	209	\$418	\$2.00
Wrasse	590	295	\$1,353	\$4.58
Parrotfish	2,752	2,752	\$6,984	\$2.54
Surgeon/tangs	7,316	7,316	\$11,487	\$1.57
Flounders	2	2	\$3	\$1.24
Filefish	9	9	\$14	\$1.50
Other Pelagic Fish	817	-	\$0	\$0.00
Rainbow runner	461	461	\$610	\$1.32
Mahimahi (dolphin)	149,649	149,649	\$272,814	\$1.82
Barracudas	681	535	\$579	\$1.08
Wahoo	33,814	33,814	\$93,140	\$2.75
Other Tunas	105	5	\$4	\$0.80
Skipjack tuna	43,266	38,089	\$53,588	\$1.41
Yellowfin tuna	116,238	116,238	\$229,215	\$1.97
Albacore	56,962	56,962	\$58,843	\$1.03
Bigeye tuna	1,060,282	1,060,282	\$2,509,831	\$2.37
Kawakawa	849	408	\$373	\$0.91
Blue Fin Tuna	453	-	\$0	\$0.00
Frigate tuna	8	8	\$15	\$1.90
Other Billfish	450	-	\$0	\$0.00
Broadbill swordfish	8,912	5,281	\$13,060	\$2.47
Blue marlin	53,493	45,032	\$64,974	\$1.44
Black marlin	32,254	258	\$401	\$1.55
Striped marlin	38,378	38,378	\$78,410	\$2.04
Shortnose spearfish	18,985	18,932	\$23,033	\$1.22
Sailfish	2,259	1,859	\$3,077	\$1.66
Ocean sunfish	65	-	\$0	\$0.00
Ocean moonfish	109,605	109,605	\$136,778	\$1.25
Spiny lobster	631	569	\$7,251	\$12.75
Slipper lobster	17	2	\$11	\$7.50
Crabs	1,267	1,267	\$5,314	\$4.19
Shrimp (saltwater)	45	45	\$296	\$6.58
Octopus	2,828	2,828	\$8,181	\$2.89
Squid	421	268	\$796	\$2.98
Limpets (saltwater)	839	612	\$3,055	\$4.99
Precious corals	740	-	\$0	\$0.00
Sea cucumbers	12	-	\$0	\$0.00
Algae	583	583	\$2,597	\$4.45
TOTAL	1,993,834	1,872,891	\$3,982,933	\$2.13

Table V.1.12

Hawaii November 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	324	324	\$984	\$3.04
Sharks	27,816	19,006	\$8,674	\$0.46
Eels	10	10	\$12	\$1.19
Bigeye scad (akule)	56,634	56,634	\$96,703	\$1.71
Mackerel scad	44,060	31,494	\$54,202	\$1.72
Leatherback	103	-	\$1	\$1.25
Ten pounder	13	13	\$13	\$1.00
Bonefish	477	477	\$487	\$1.02
Milkfish	4	4	\$5	\$1.25
Needlefish	13	6	\$7	\$1.08
Threadfin	1	-	\$0	\$0.00
Mullet	1,379	1,255	\$4,080	\$3.25
Pomfret	32,352	32,352	\$45,343	\$1.40
Oilfish	23,825	23,825	\$19,832	\$0.83
Jacks (misc)	288	288	\$670	\$2.32
Amberjack	708	407	\$238	\$0.59
Blue crevally	573	573	\$975	\$1.70
Pig-lipped ulua	4,341	4,210	\$4,107	\$0.98
Dobe ulua	9	9	\$26	\$2.78
Paapaa ulua	545	397	\$810	\$2.04
White ulua	768	496	\$979	\$1.97
Black ulua	278	264	\$428	\$1.62
Hawaiian Grouper	3,954	3,941	\$13,931	\$3.53
Blue spot grouper	52	2	\$9	\$4.00
Snappers	72	71	\$228	\$3.23
Blue lined snapper	1,532	1,532	\$1,880	\$1.23
Ehu (red snapper)	2,119	2,119	\$8,820	\$4.16
Gindai (flower snapper)	462	462	\$1,286	\$2.78
Kalekale(pink snapper)	1,811	1,811	\$4,884	\$2.70
Lehi (silverjaw)	726	726	\$1,940	\$2.67
Onaga (red snapper)	16,342	16,342	\$78,869	\$4.83
Opakapaka (pink snapper)	16,308	16,308	\$70,352	\$4.31
Uku (gray snapper)	8,763	8,763	\$15,839	\$1.81
Porgy	261	196	\$472	\$2.41
Reef jacks	11	11	\$30	\$2.83
Squirrelfish	5,471	5,471	\$17,464	\$3.19
Trumpetfish	3	3	\$1	\$0.50
Scorpionfish	242	235	\$935	\$3.97
Mountain bass	414	414	\$1,535	\$3.71
Bigeyes	688	688	\$2,264	\$3.29
Cardinalfish	3	3	\$4	\$1.50
Goatfish	8,375	6,544	\$16,708	\$2.55
Rudderfish	2,767	2,767	\$2,439	\$0.88
Butterflyfish	41	41	\$20	\$0.49
Damselfish	67	6	\$10	\$1.58

Table V.1.12 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Hawkfish	9	9	\$23	\$2.55
Tilapia	95	64	\$128	\$2.00
Wrasse	611	546	\$3,030	\$5.55
Parrotfish	5,938	5,938	\$15,004	\$2.53
Surgeon/tangs	10,378	10,378	\$15,834	\$1.53
Flounders	4	4	\$4	\$1.00
Triggerfish	15	-	\$0	\$0.00
Filefish	27	27	\$44	\$1.61
Pufferfish	2	-	\$0	\$0.00
Other Pelagic Fish	240	-	\$0	\$0.00
Rainbow runner	689	689	\$744	\$1.08
Mahimahi (dolphin)	125,881	125,881	\$214,920	\$1.71
Barracudas	811	811	\$904	\$1.12
Wahoo	24,067	24,067	\$70,101	\$2.91
Other Tunas	186	-	\$0	\$0.00
Skipjack tuna	103,729	72,290	\$60,438	\$0.84
Yellowfin tuna	82,041	82,041	\$147,975	\$1.80
Albacore	25,834	25,834	\$40,615	\$1.57
Bigeye tuna	1,433,886	1,433,886	\$3,028,107	\$2.11
Kawakawa	760	592	\$598	\$1.01
Frigate tuna	77	77	\$113	\$1.46
Other Billfish	900	-	\$0	\$0.00
Broadbill swordfish	10,557	8,050	\$21,810	\$2.71
Blue marlin	56,292	29,554	\$32,801	\$1.11
Black marlin	1,505	470	\$728	\$1.55
Striped marlin	75,883	75,883	\$90,431	\$1.19
Shortnose spearfish	23,572	21,027	\$19,536	\$0.93
Sailfish	1,297	343	\$228	\$0.67
Ocean sunfish	8	8	\$8	\$1.00
Ocean moonfish	130,625	130,625	\$86,701	\$0.66
Spiny lobster	1,048	1,022	\$13,181	\$12.90
Slipper lobster	13	13	\$102	\$8.06
Crabs	1,248	1,248	\$5,322	\$4.27
Shrimp (saltwater)	377	52	\$416	\$8.00
Octopus	2,611	2,611	\$7,252	\$2.78
Squid	200	200	\$549	\$2.75
Limpets (saltwater)	1,332	1,332	\$6,244	\$4.69
Precious corals	290	-	\$0	\$0.00
Sea urchins	10	10	\$35	\$3.50
Algae	418	418	\$2,232	\$5.34
TOTAL	2,388,468	2,296,498	\$4,364,651	\$1.90

Table V.1.13

Hawaii December 2002 Reported Commercial Landings

Species	Caught	Sold	Value	Price/Lb.
Miscellaneous	620	620	\$1,814	\$2.93
Sharks	58,469	34,781	\$5,800	\$0.17
Eels	62	62	\$93	\$1.50
Alfonsin	4	4	\$11	\$2.50
Bigeye scad (akule)	30,827	30,827	\$56,460	\$1.83
Mackerel scad	38,083	22,552	\$40,444	\$1.79
Leatherback	4	-	\$0	\$0.00
Ten pounder	4	4	\$4	\$1.25
Bonefish	117	72	\$74	\$1.03
Milkfish	16	-	\$0	\$0.00
Needlefish	136	136	\$203	\$1.50
Threadfin	25	25	\$117	\$4.68
Mullet	17	14	\$46	\$3.44
Pomfret	36,286	35,901	\$62,167	\$1.73
Oilfish	32,209	32,209	\$32,465	\$1.01
Jacks (misc)	406	406	\$1,001	\$2.46
Amberjack	997	101	\$76	\$0.75
Blue crevally	387	109	\$264	\$2.42
Pig-lipped ulua	6,030	5,772	\$7,120	\$1.23
Dobe ulua	195	162	\$169	\$1.05
Paapaa ulua	822	247	\$486	\$1.97
White ulua	795	795	\$1,208	\$1.52
Black ulua	321	247	\$293	\$1.19
Hawaiian Grouper	4,886	4,551	\$18,457	\$4.06
Blue spot grouper	7	7	\$14	\$2.00
Snappers	89	89	\$308	\$3.48
Blue lined snapper	1,607	1,607	\$1,832	\$1.14
Ehu (red snapper)	4,285	4,154	\$16,900	\$4.07
Gindai (flower snapper)	664	587	\$1,691	\$2.88
Kalekale(pink snapper)	1,885	1,885	\$4,780	\$2.54
Lehi (silverjaw)	790	690	\$2,084	\$3.02
Onaga (red snapper)	20,647	20,647	\$116,031	\$5.62
Opakapaka (pink snapper)	22,610	21,371	\$102,274	\$4.79
Uku (gray snapper)	5,776	4,800	\$14,713	\$3.07
Porgy	202	202	\$428	\$2.12
Reef jacks	1	1	\$4	\$7.00
Squirrelfish	4,993	4,993	\$16,336	\$3.27
Trumpetfish	7	5	\$8	\$1.60
Scorpionfish	320	314	\$1,383	\$4.40
Mountain bass	296	296	\$1,157	\$3.91
Bigeyes	923	923	\$3,012	\$3.26

Table V.1.13 (Cont.)

Species	Caught	Sold	Value	Price/Lb.
Goatfish	7,977	7,977	\$21,537	\$2.70
Rudderfish	700	700	\$281	\$0.40
Butterflyfish	21	21	\$11	\$0.53
Damselfish	75	18	\$38	\$2.06
Hawkfish	30	30	\$70	\$2.31
Tilapia	200	100	\$200	\$2.00
Wrasse	504	397	\$1,949	\$4.91
Parrotfish	4,925	4,925	\$11,051	\$2.24
Surgeon/tangs	10,222	10,222	\$14,343	\$1.40
Triggerfish	10	-	\$0	\$0.00
Filefish	201	201	\$265	\$1.32
Other Pelagic Fish	1,250	-	\$0	\$0.00
Rainbow runner	189	189	\$262	\$1.39
Mahimahi (dolphin)	143,416	143,416	\$225,581	\$1.57
Barracudas	1,000	773	\$1,081	\$1.40
Wahoo	26,065	26,065	\$72,300	\$2.77
Other Tunas	670	14	\$25	\$1.75
Skipjack tuna	227,504	126,369	\$109,113	\$0.86
Yellowfin tuna	112,671	112,671	\$238,845	\$2.12
Albacore	85,762	84,528	\$110,195	\$1.30
Bigeye tuna	1,747,707	1,747,707	\$4,249,842	\$2.43
Kawakawa	1,230	251	\$265	\$1.05
Blue Fin Tuna	151	-	\$0	\$0.00
Frigate tuna	8	8	\$12	\$1.50
Other Billfish	90	-	\$0	\$0.00
Broadbill swordfish	14,405	14,405	\$35,212	\$2.44
Blue marlin	33,995	15,593	\$20,407	\$1.31
Black marlin	698	-	\$0	\$0.00
Striped marlin	73,788	73,788	\$117,829	\$1.60
Shortnose spearfish	48,507	40,246	\$29,533	\$0.73
Sailfish	1,709	62	\$112	\$1.80
Ocean sunfish	1,365	58	\$10	\$0.18
Ocean moonfish	108,693	108,693	\$131,842	\$1.21
Belt Fish	48	-	\$0	\$0.00
Spiny lobster	416	183	\$2,281	\$12.48
Slipper lobster	5	5	\$42	\$9.00
Crabs	2,495	2,495	\$11,299	\$4.53
Shrimp (saltwater)	220	-	\$0	\$0.00
Octopus	2,018	2,018	\$6,175	\$3.06
Squid	7	-	\$0	\$0.00
Limpets (saltwater)	1,052	1,052	\$4,933	\$4.69
Sea urchins	12	12	\$10	\$0.83
Algae	382	382	\$2,153	\$5.64
TOTAL	2,939,209	2,757,739	\$5,930,825	\$2.15

Figure V.1.1

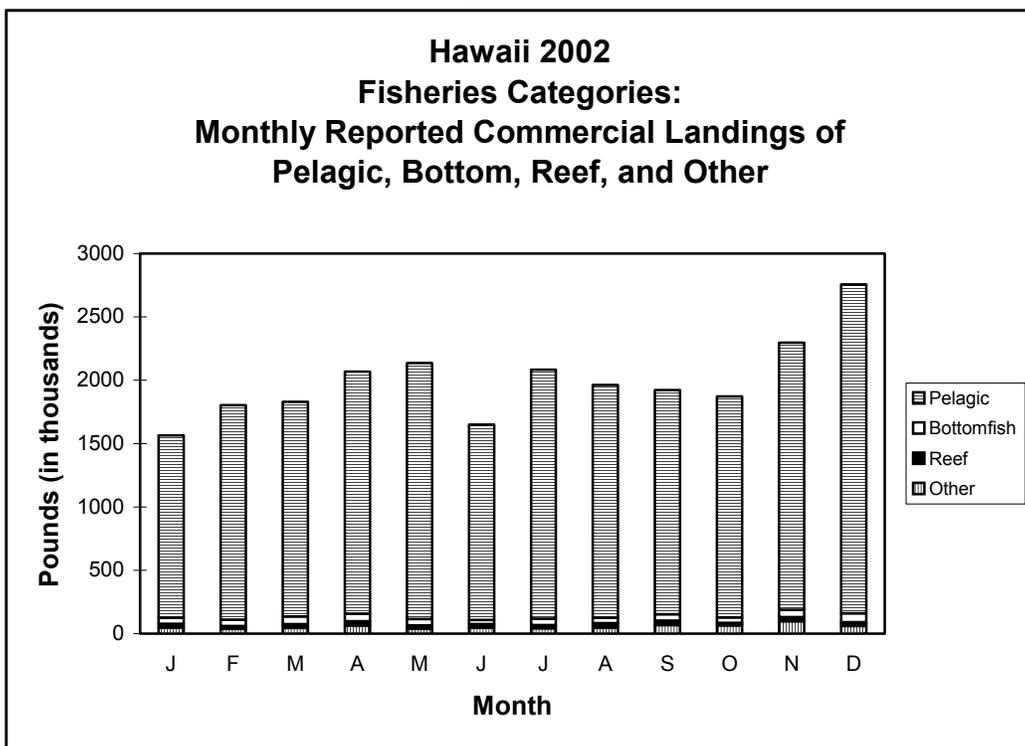


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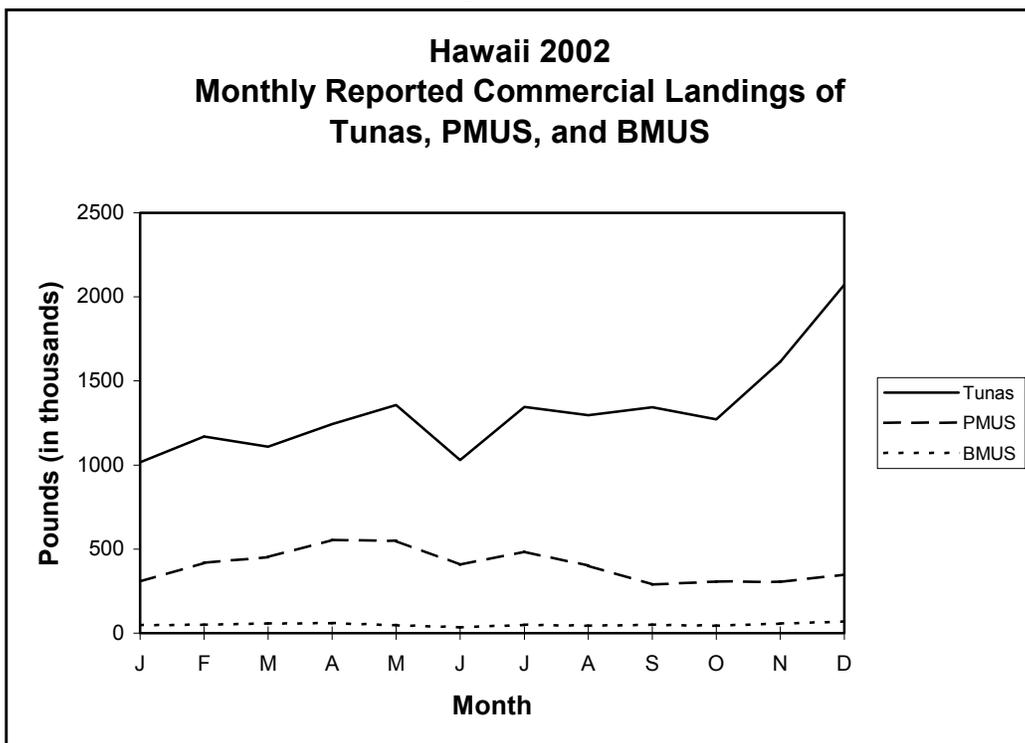


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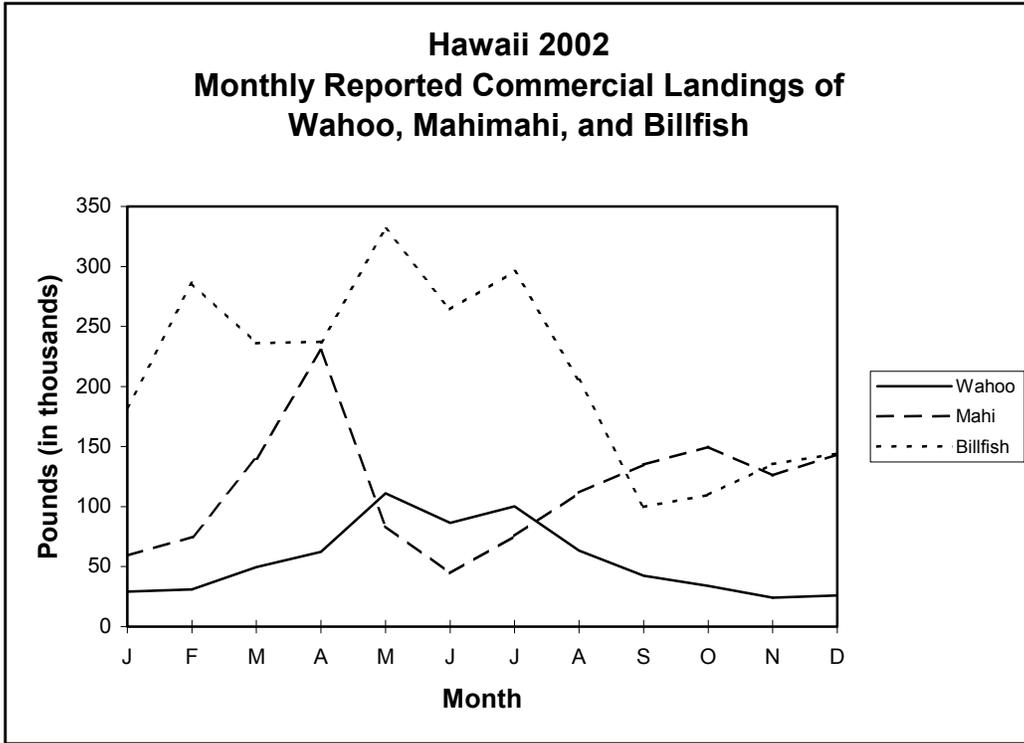


Figure V.1.4

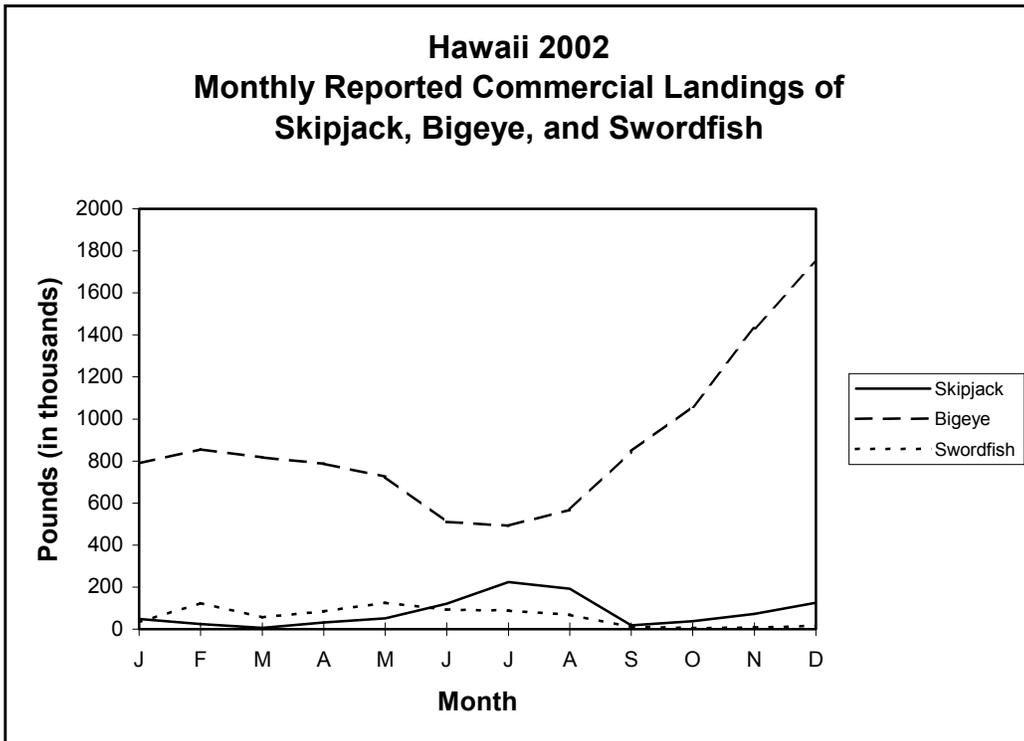


Figure V.1.5

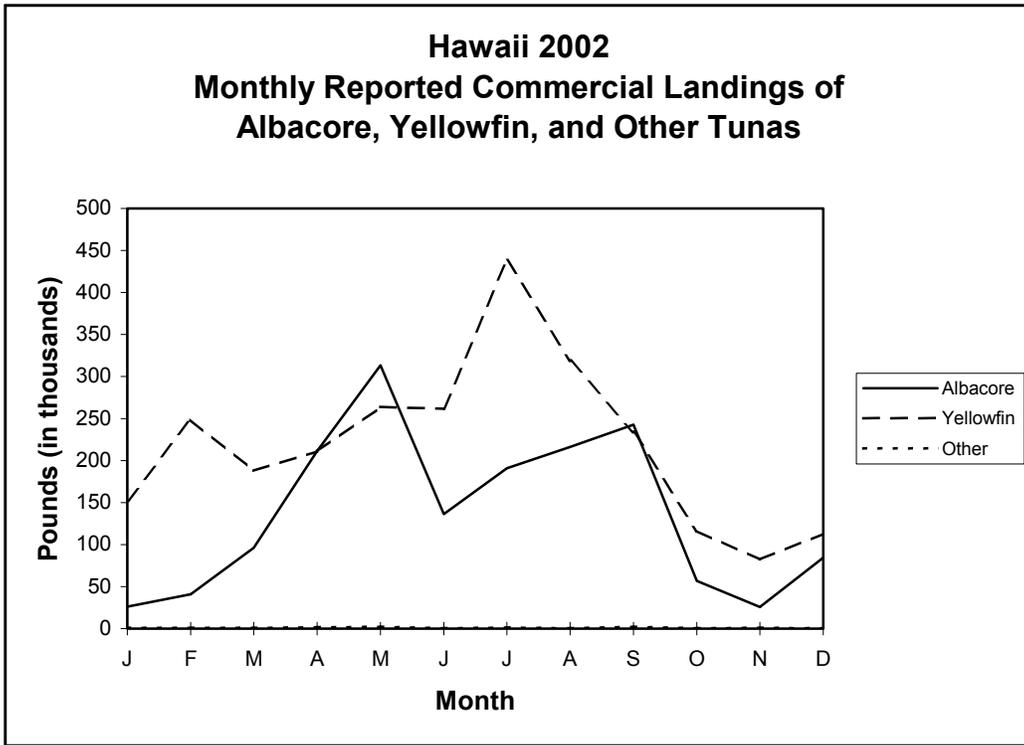


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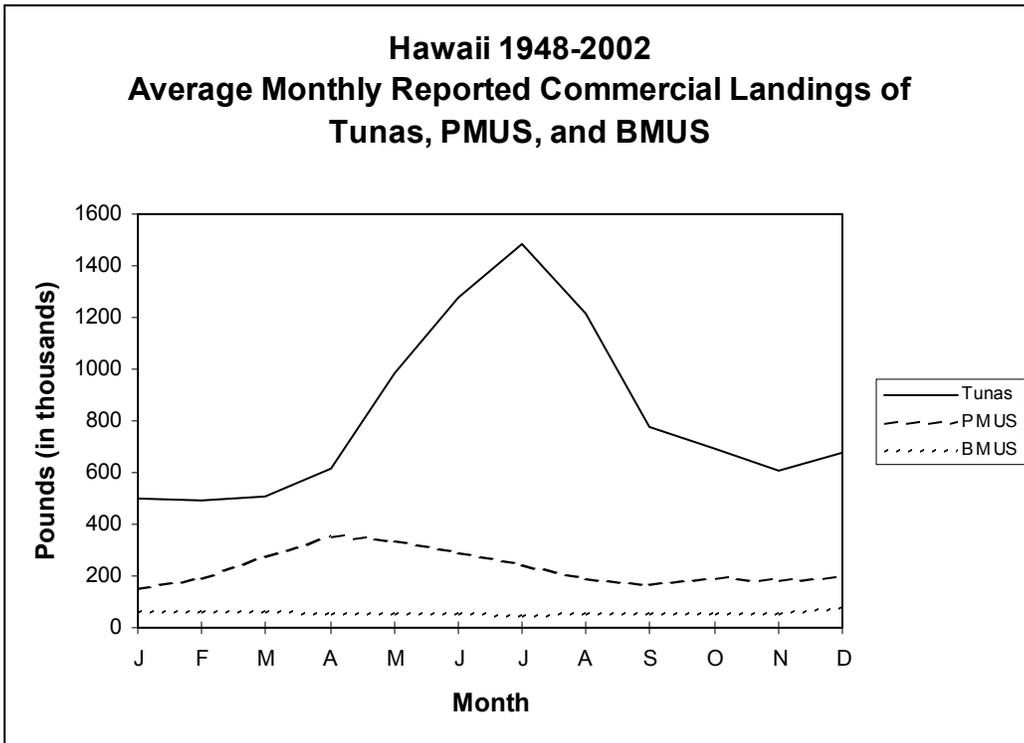


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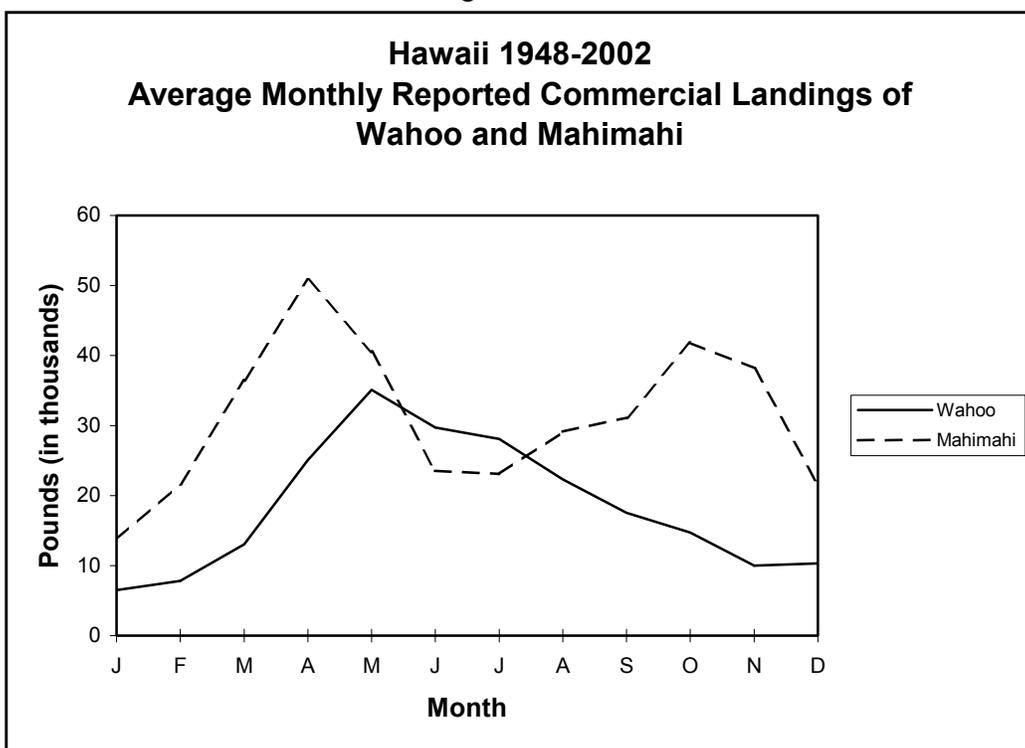


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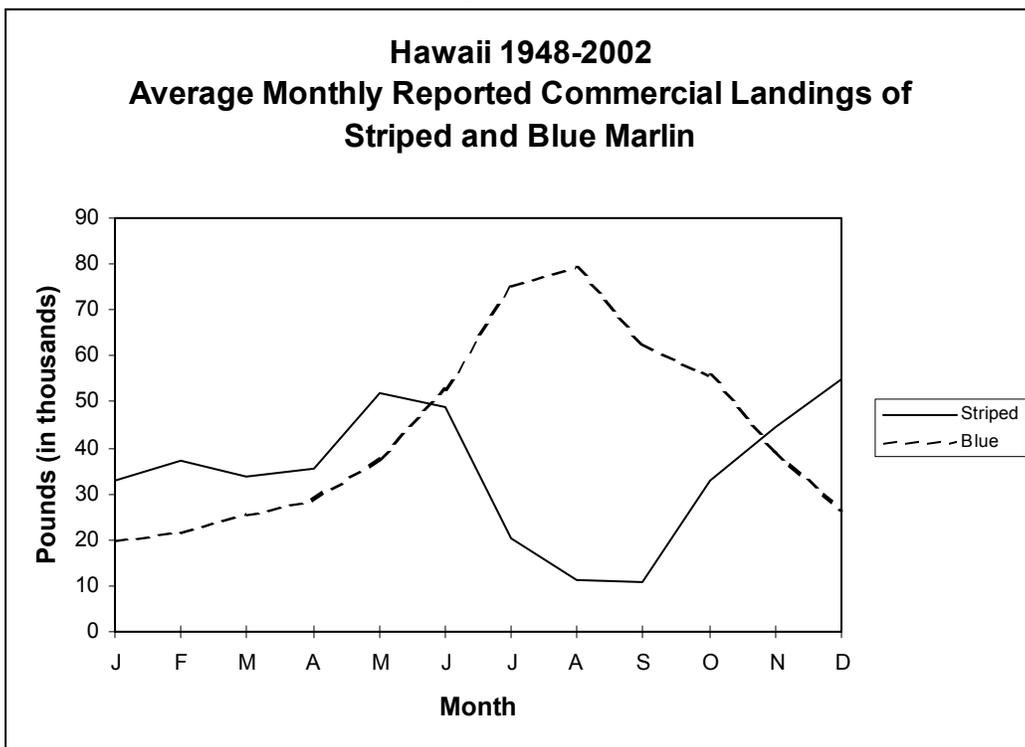


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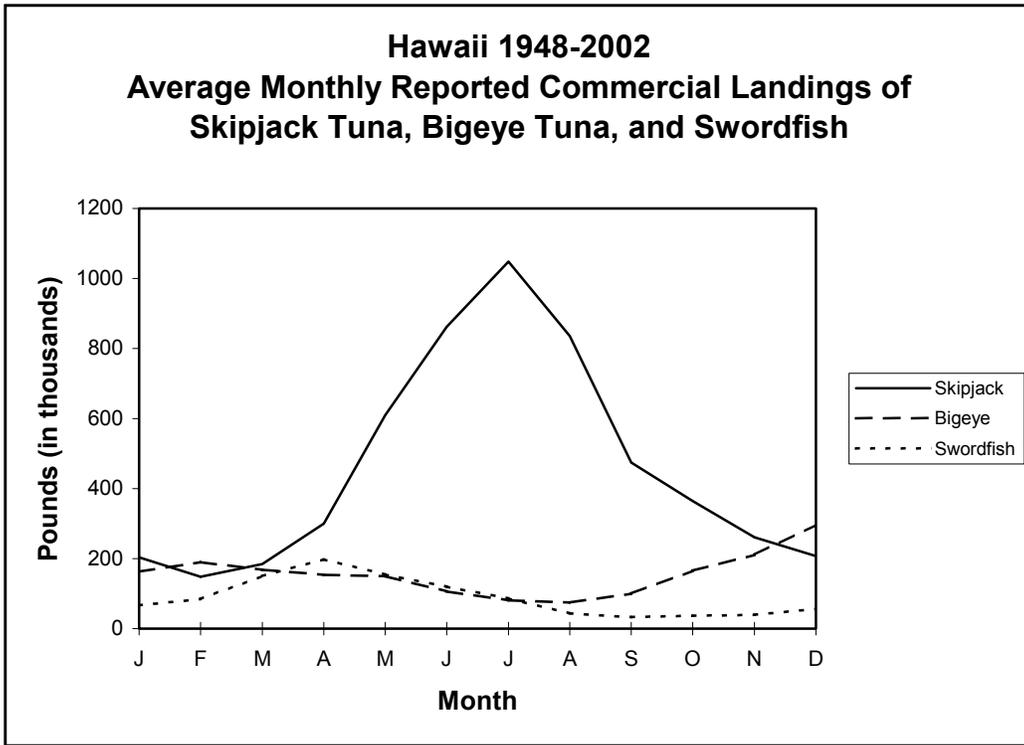


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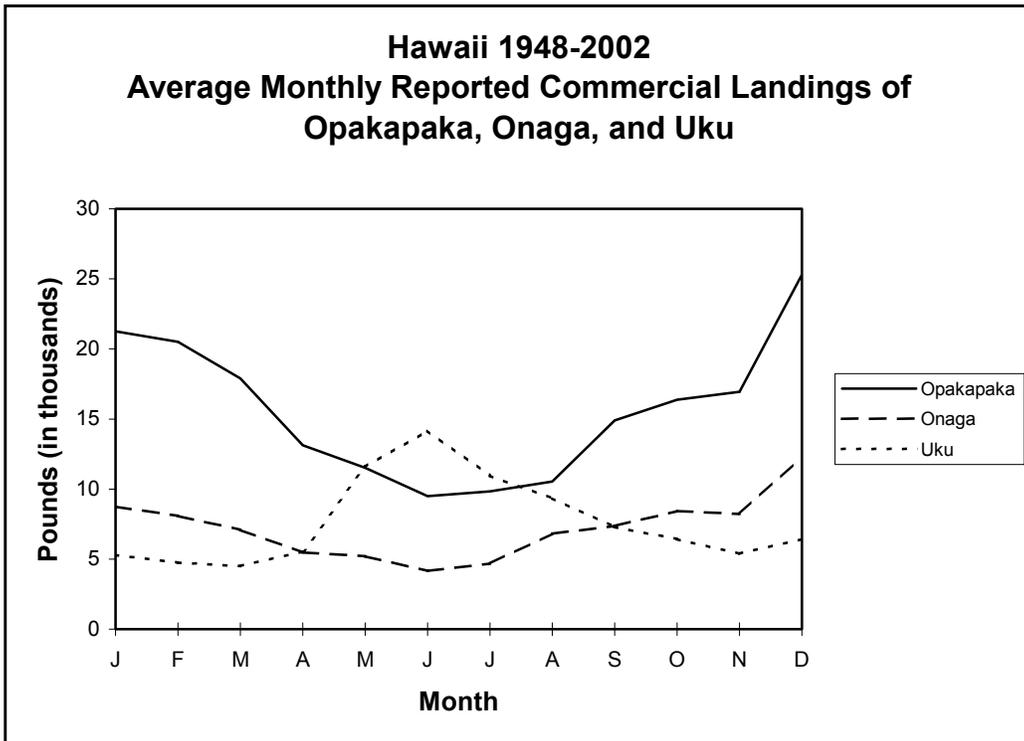


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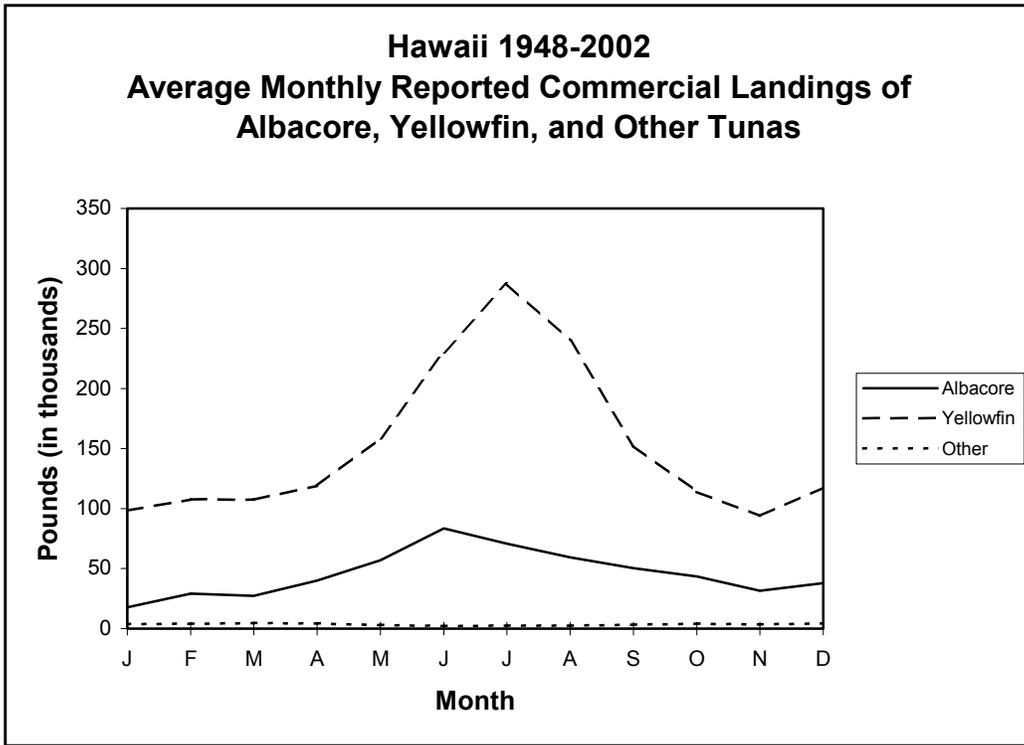


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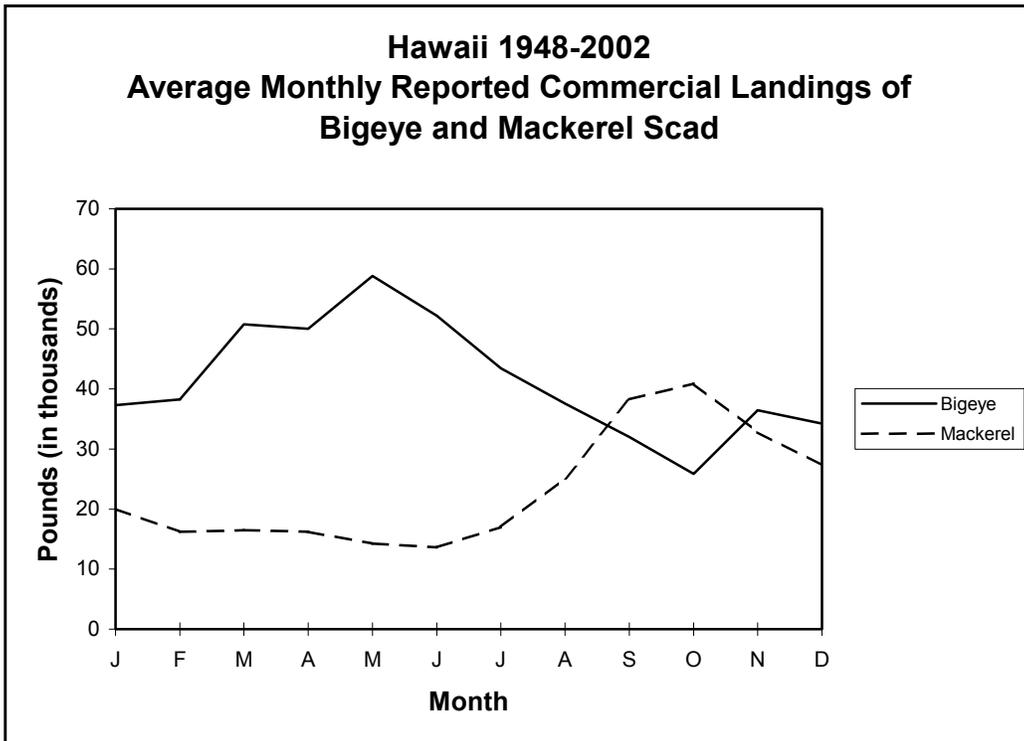


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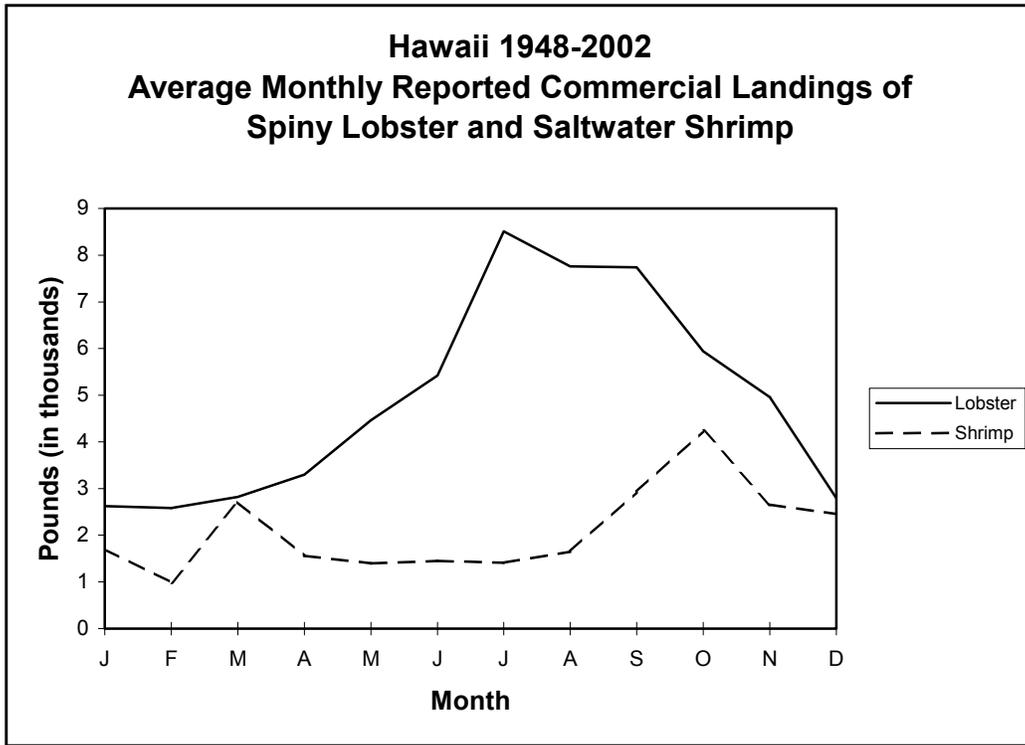


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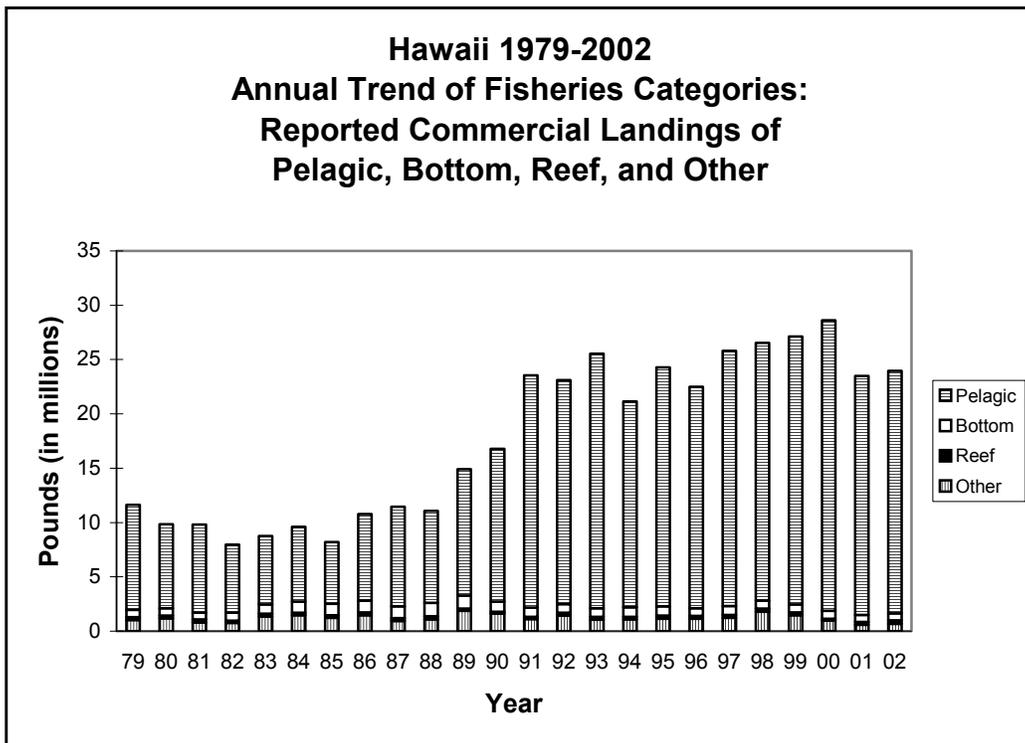


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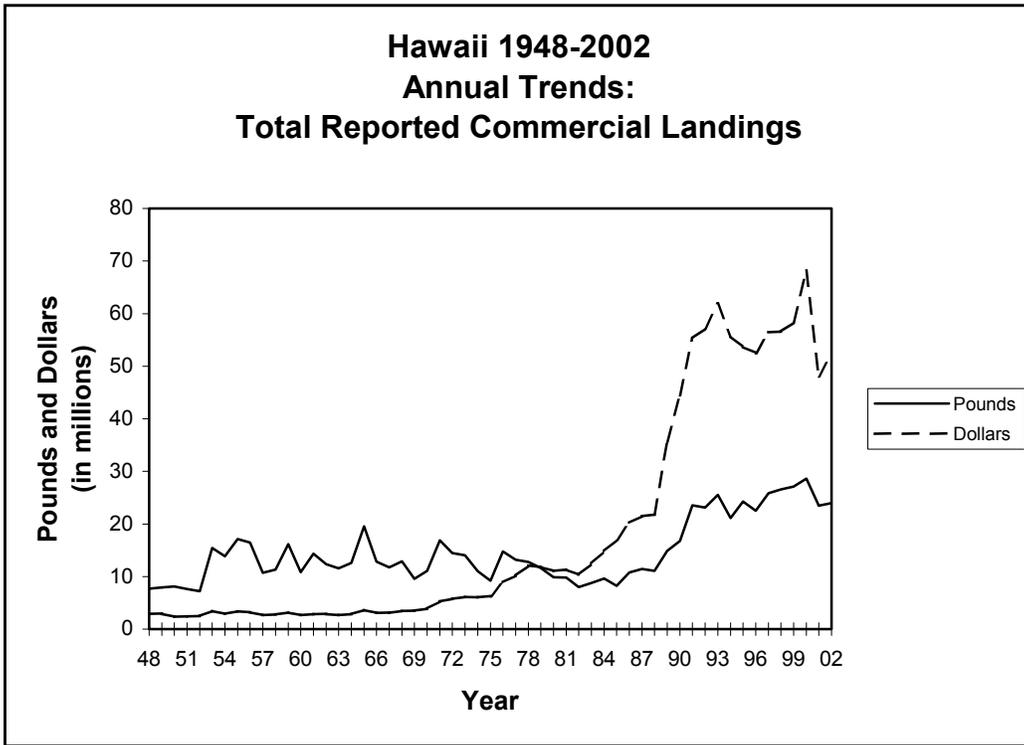


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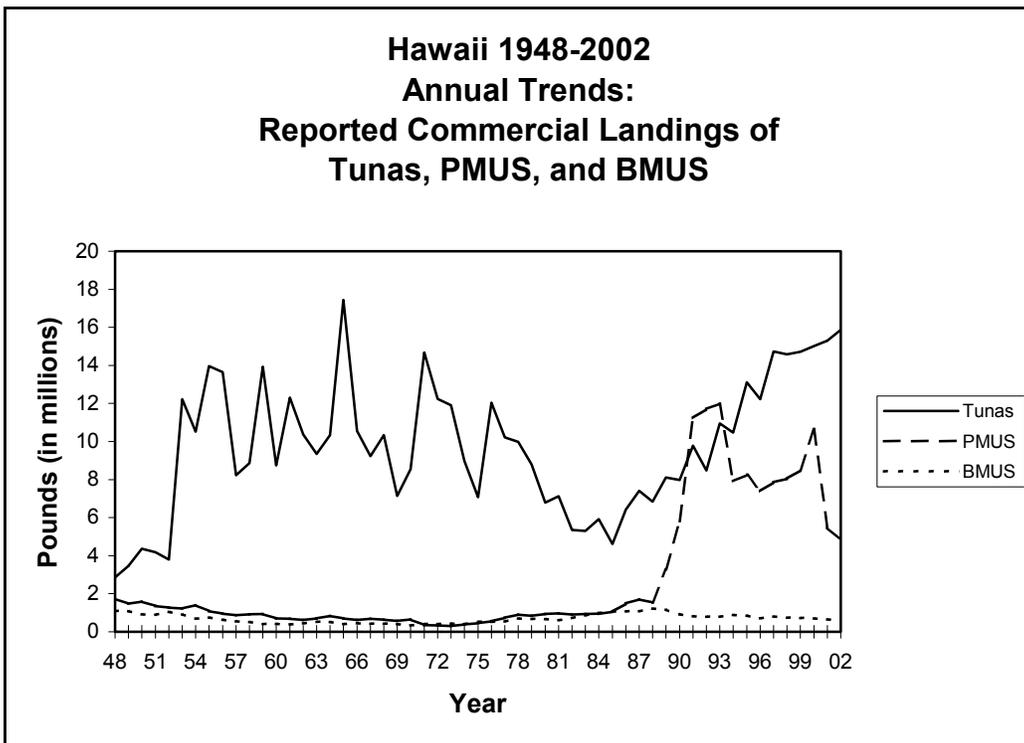


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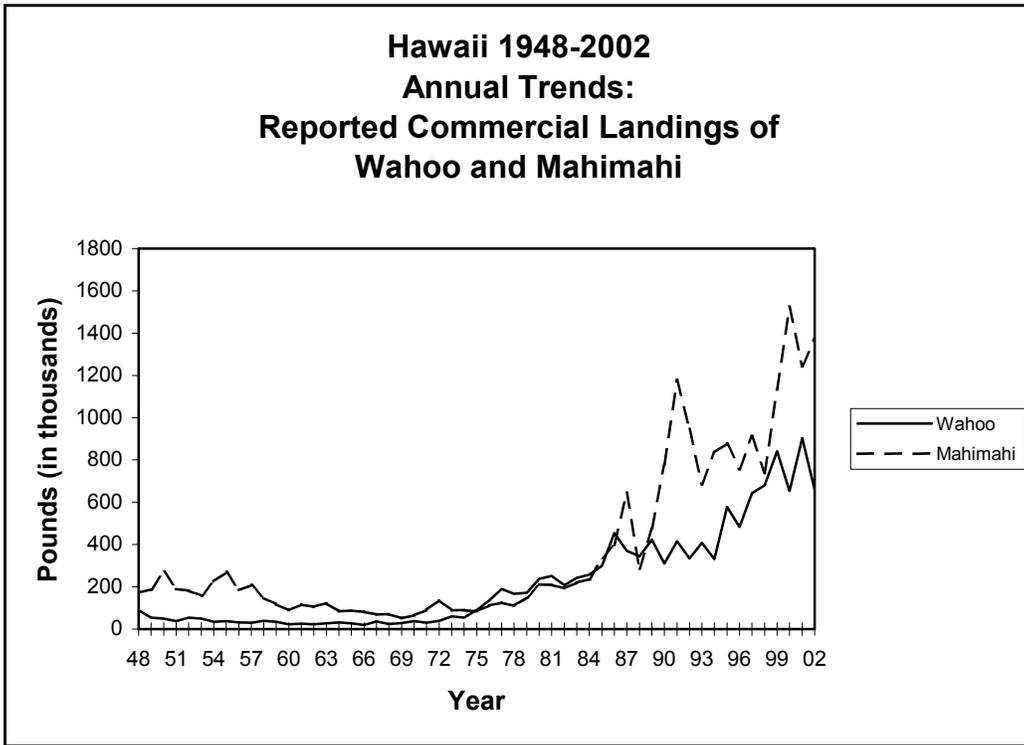


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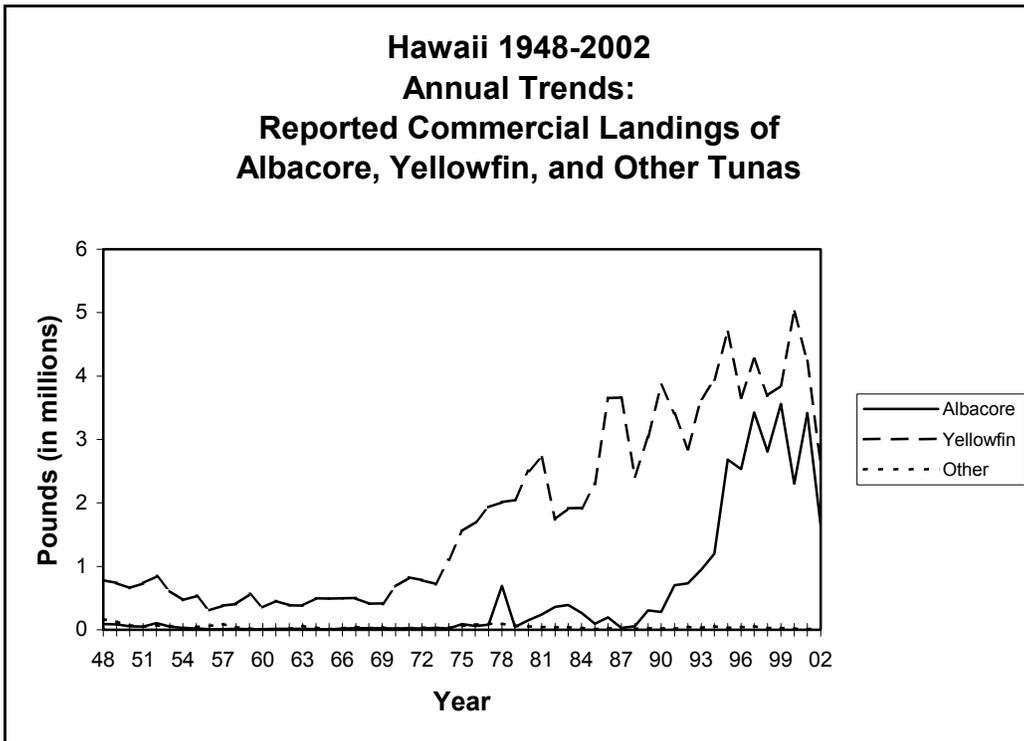


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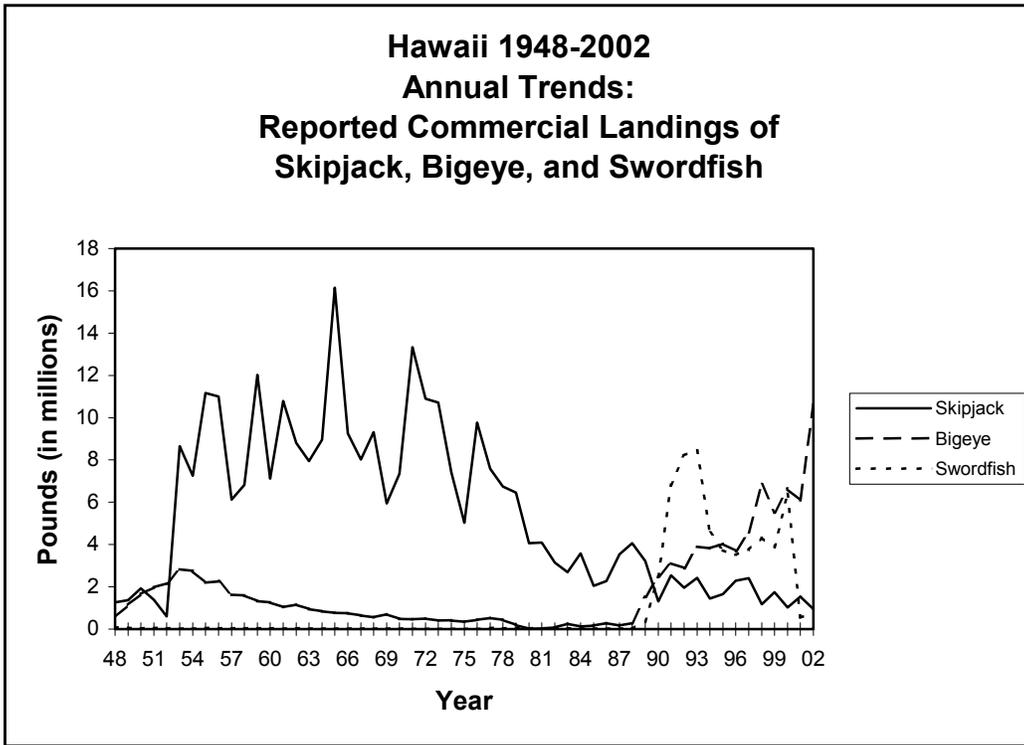


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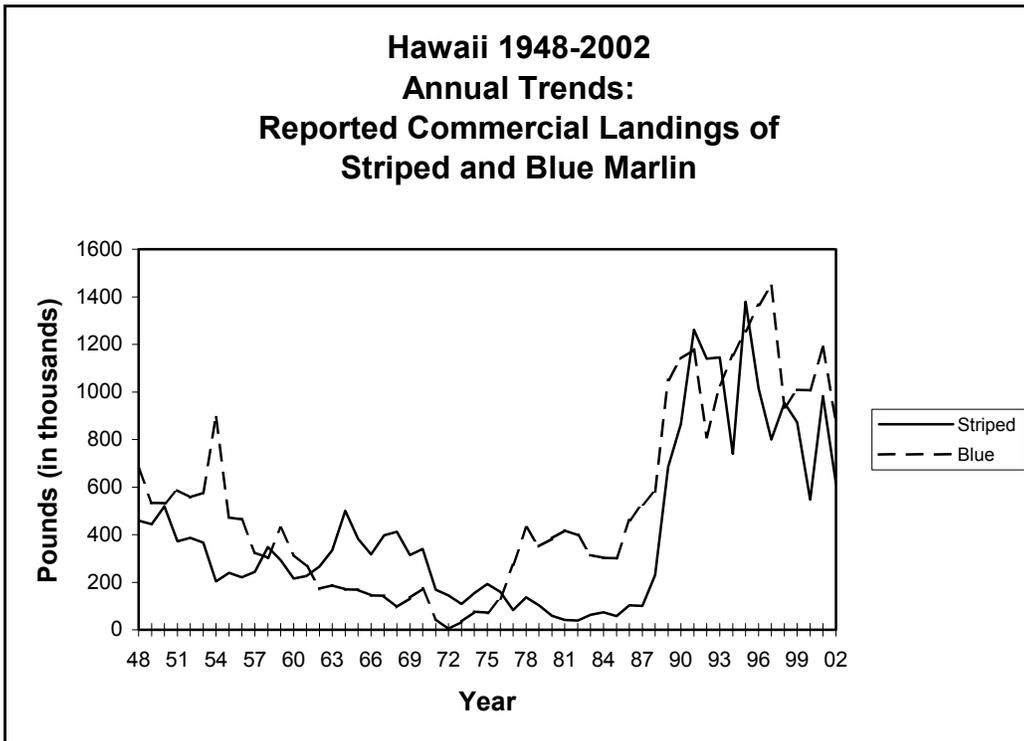


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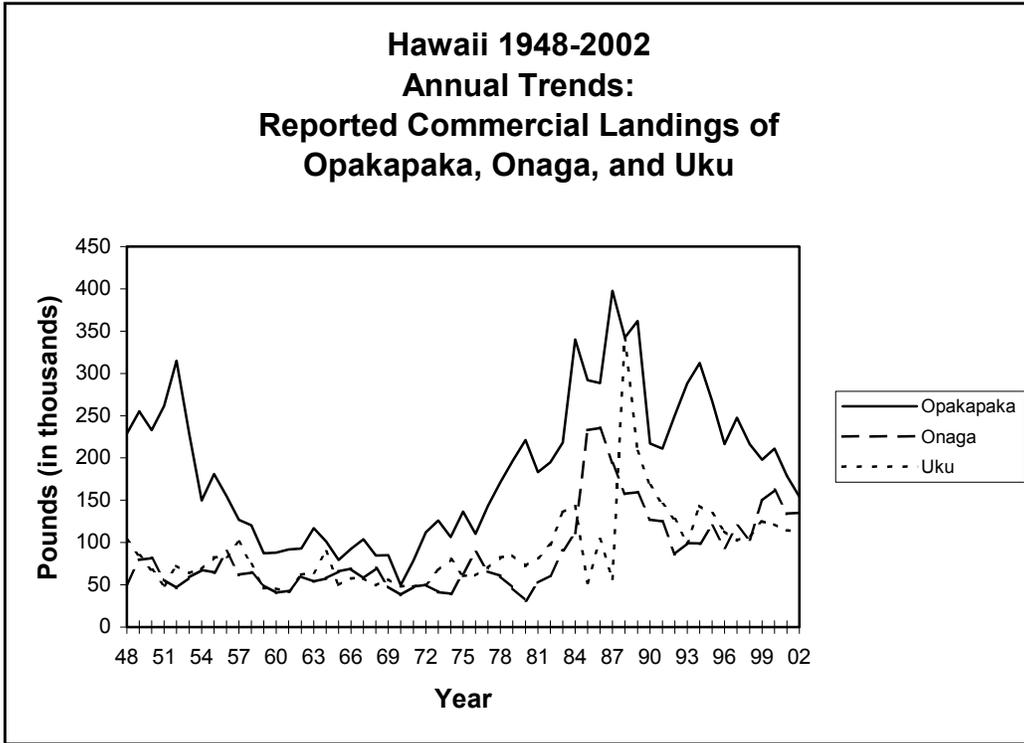


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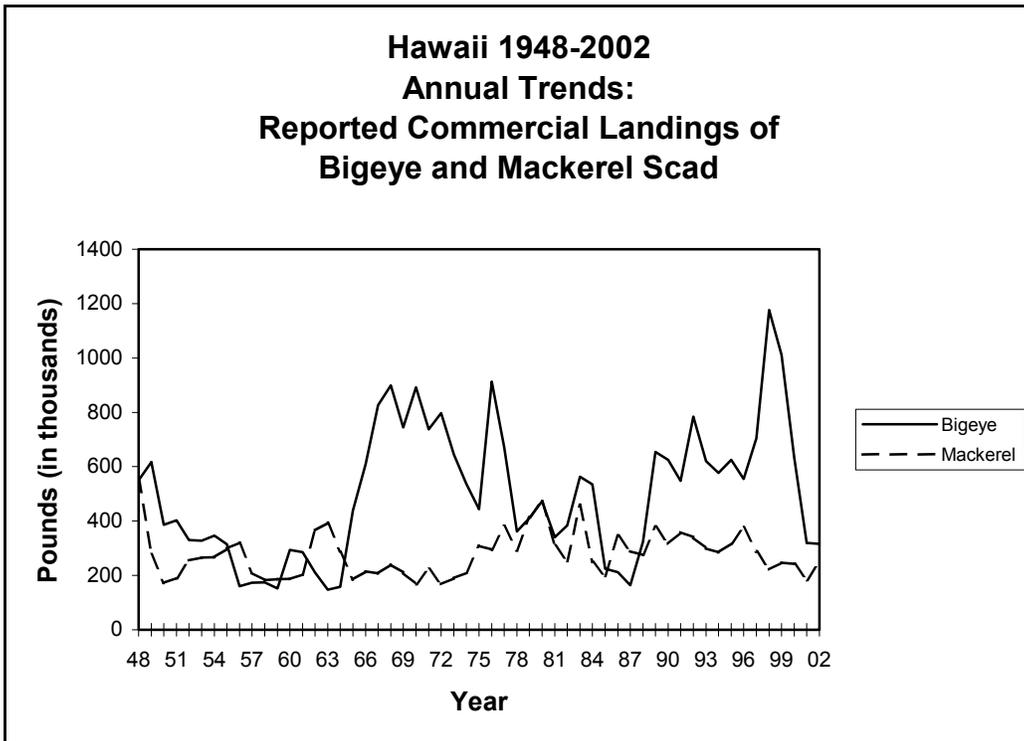


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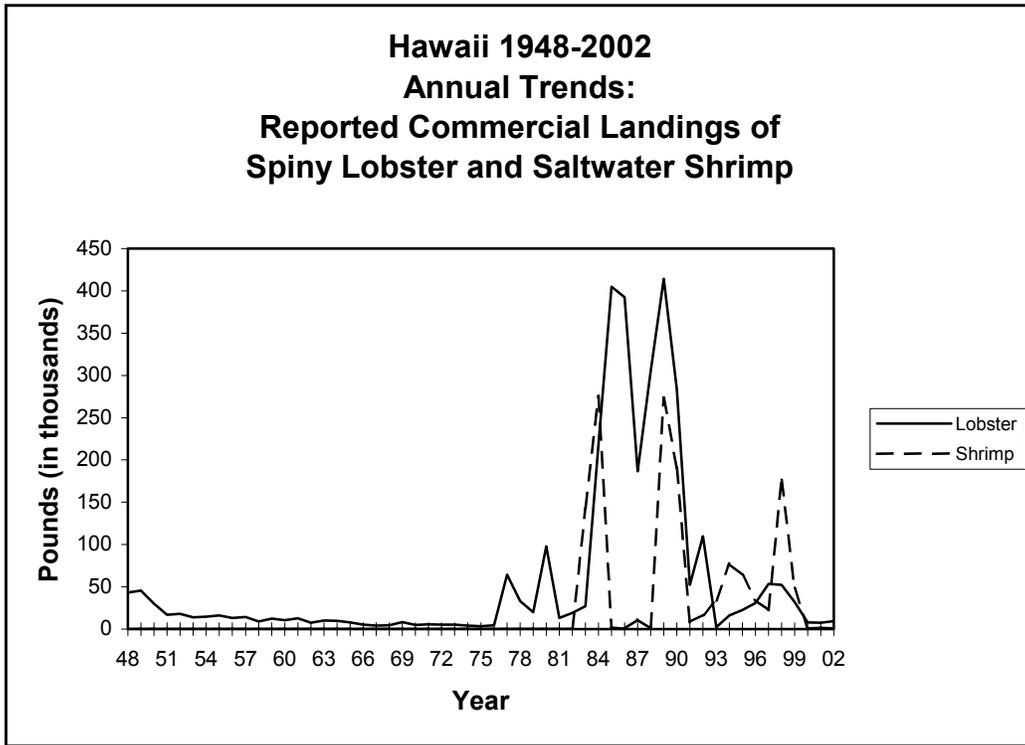


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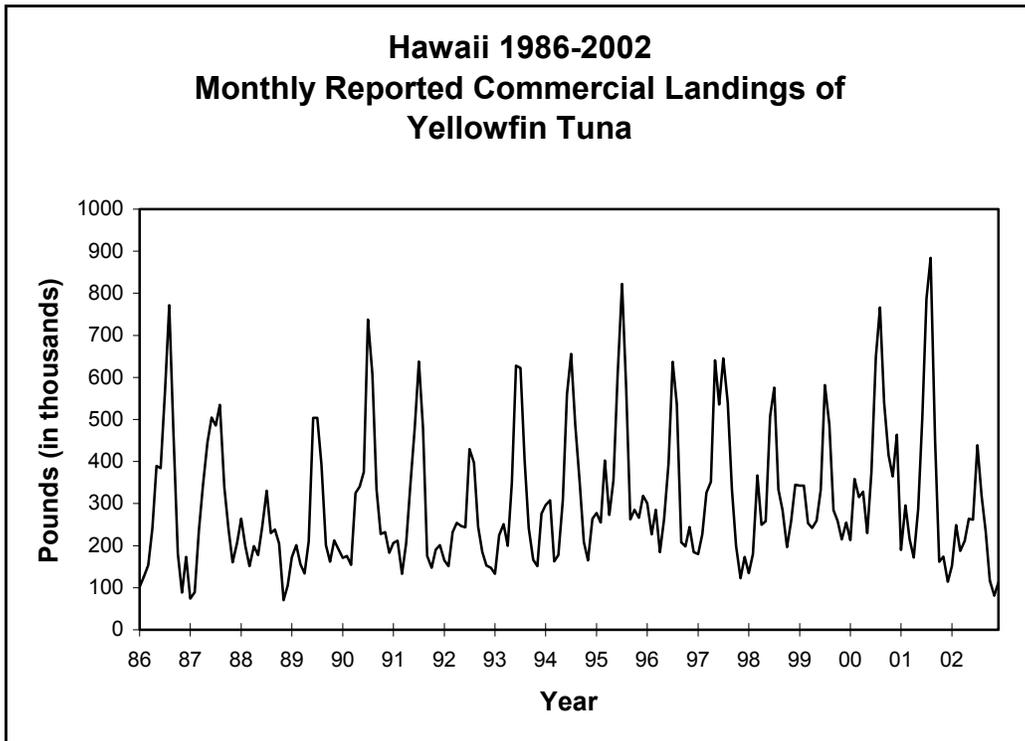


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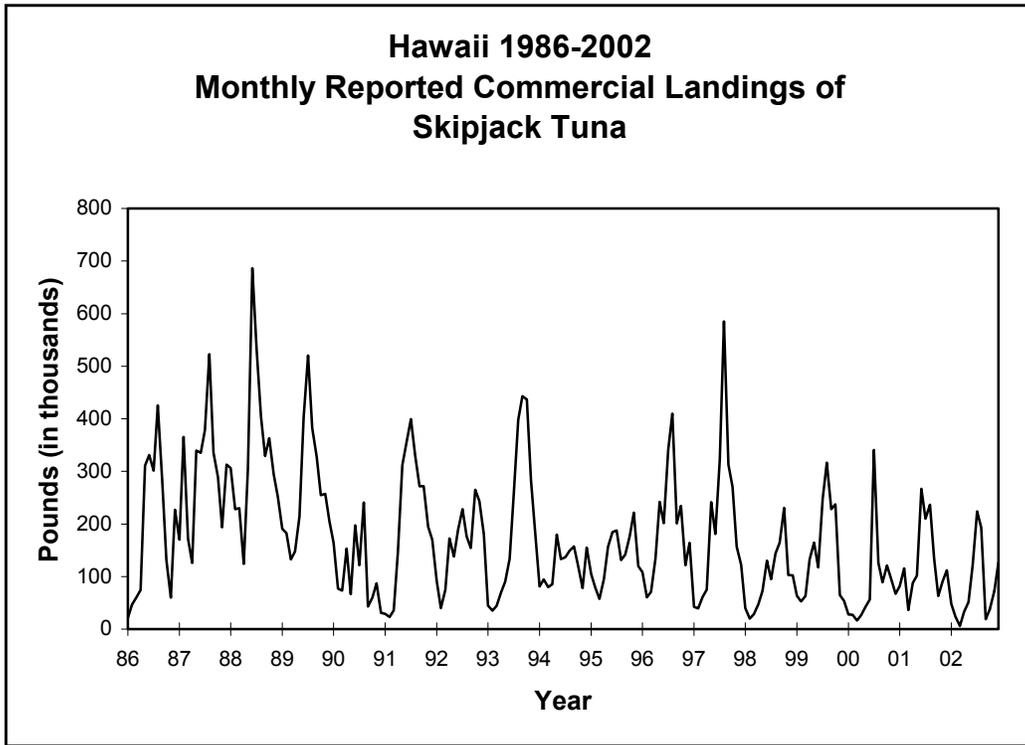


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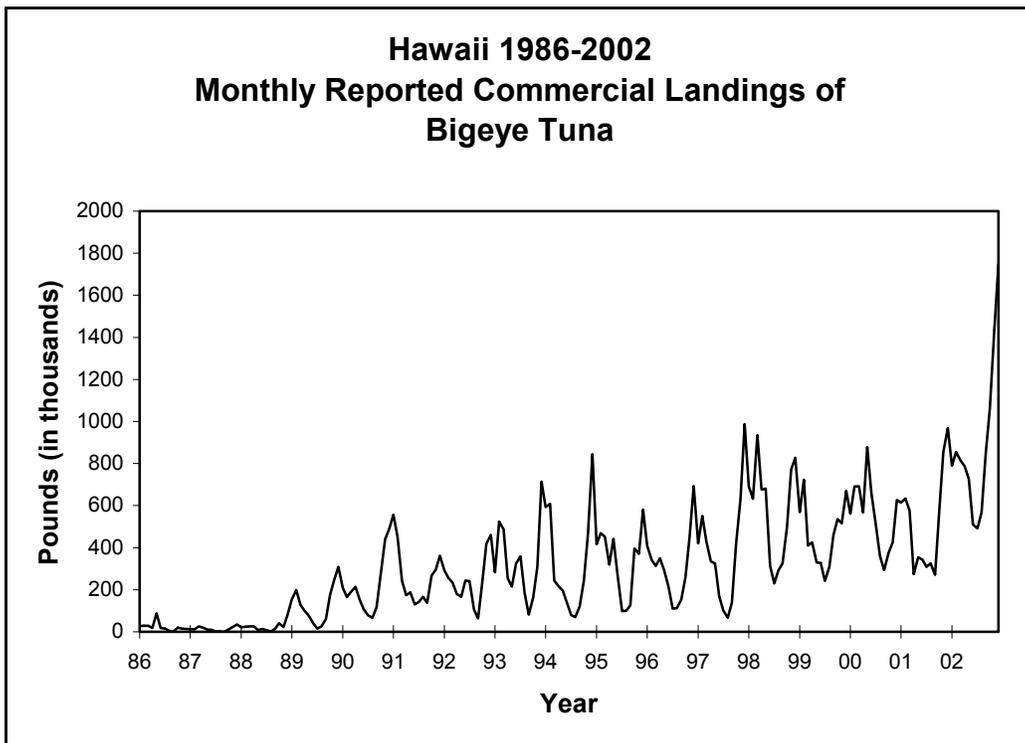


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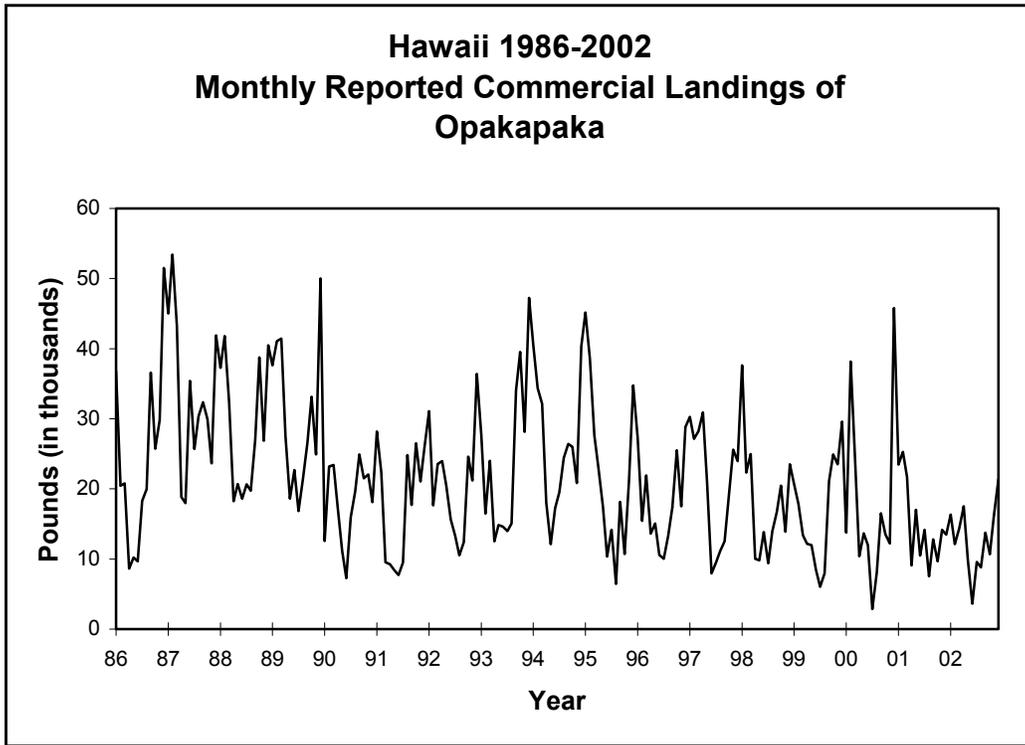


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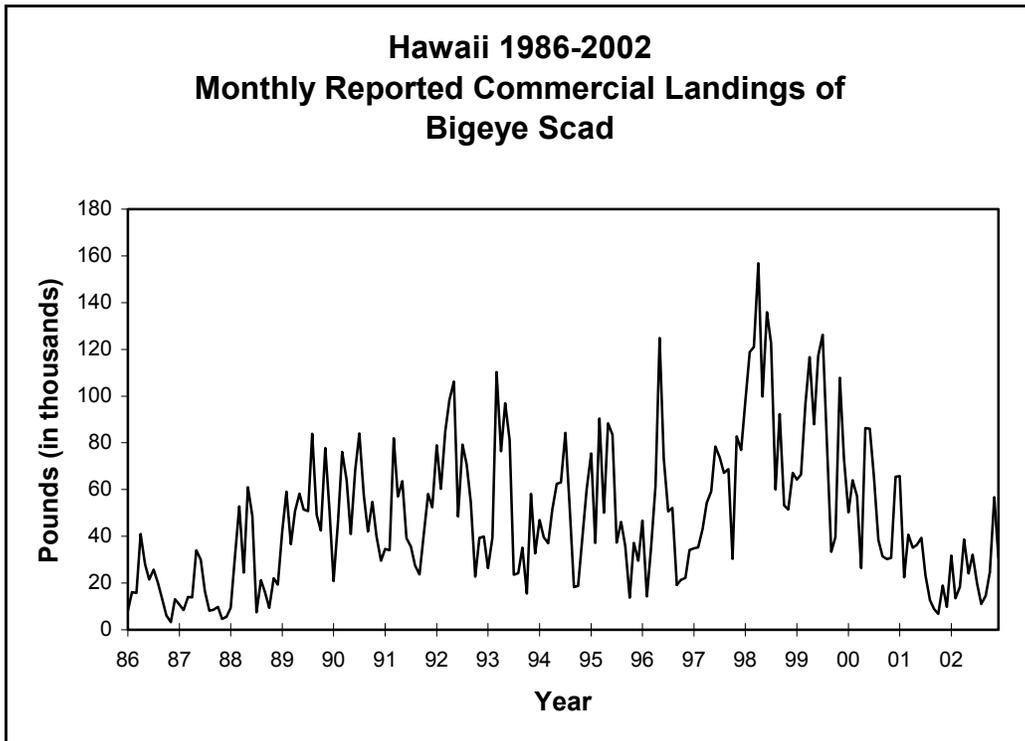


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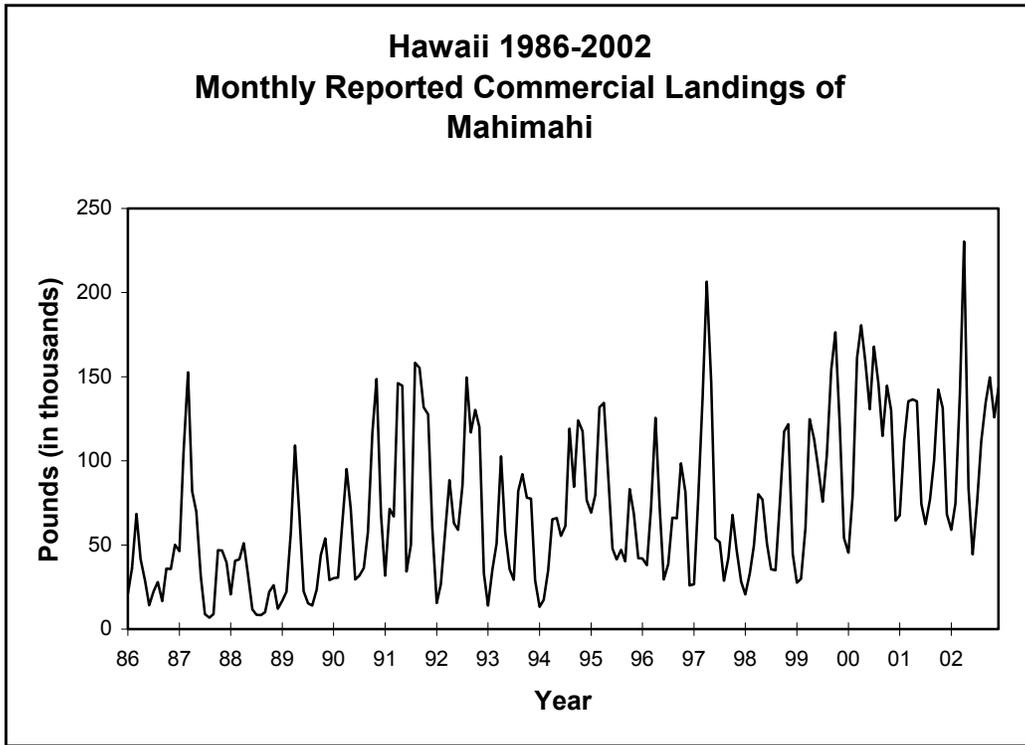


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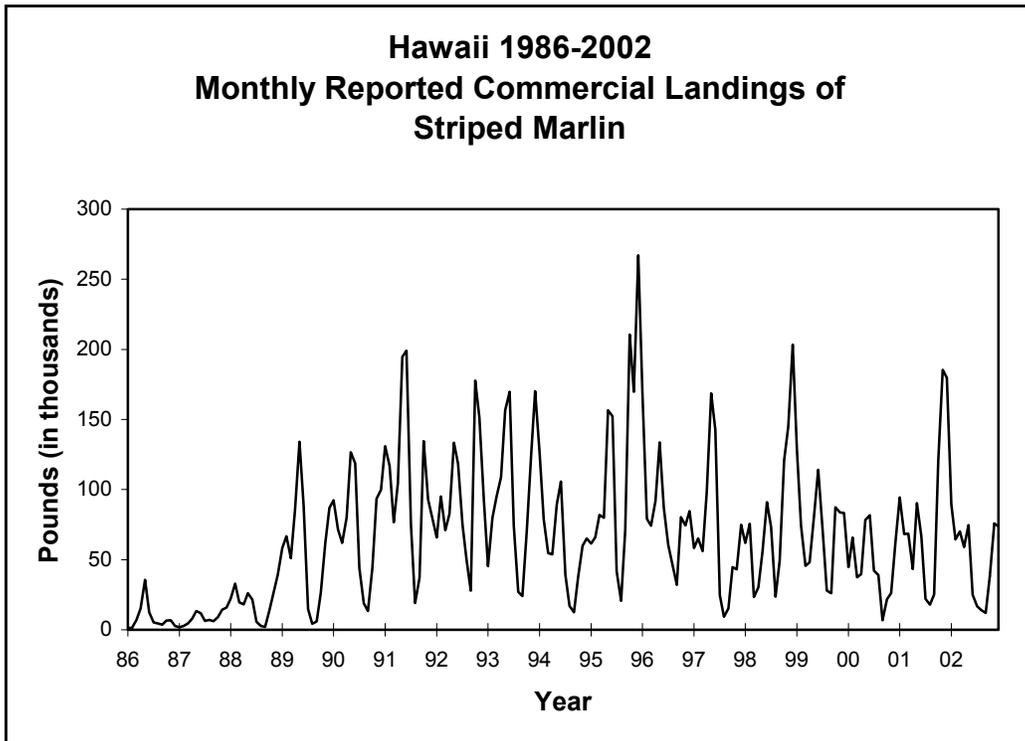


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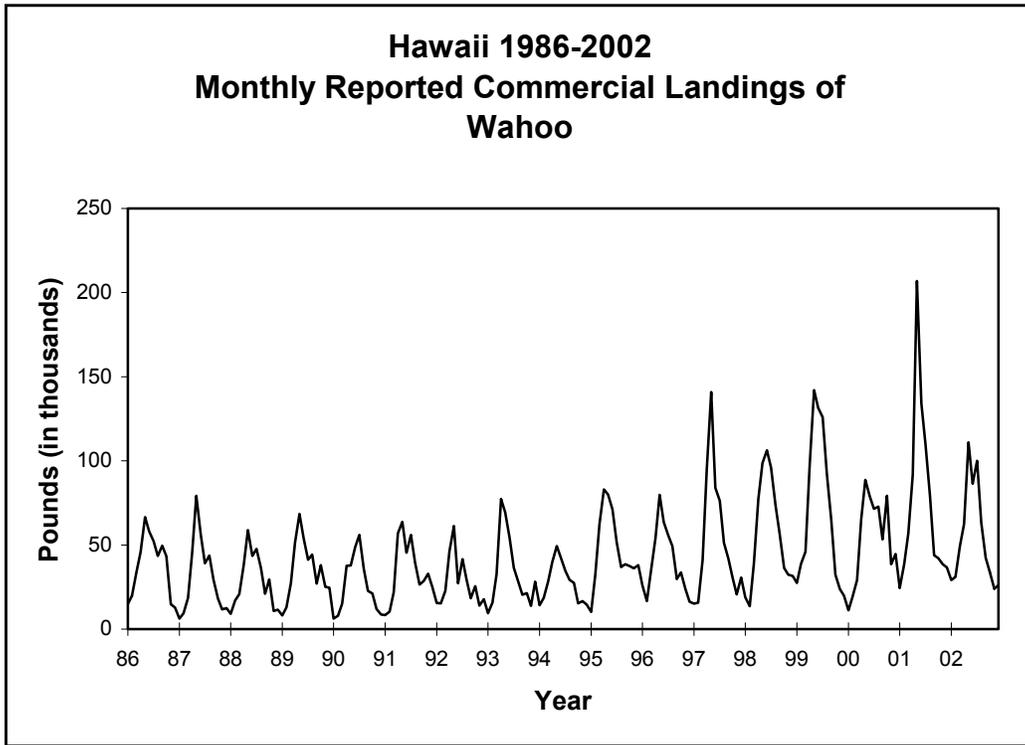


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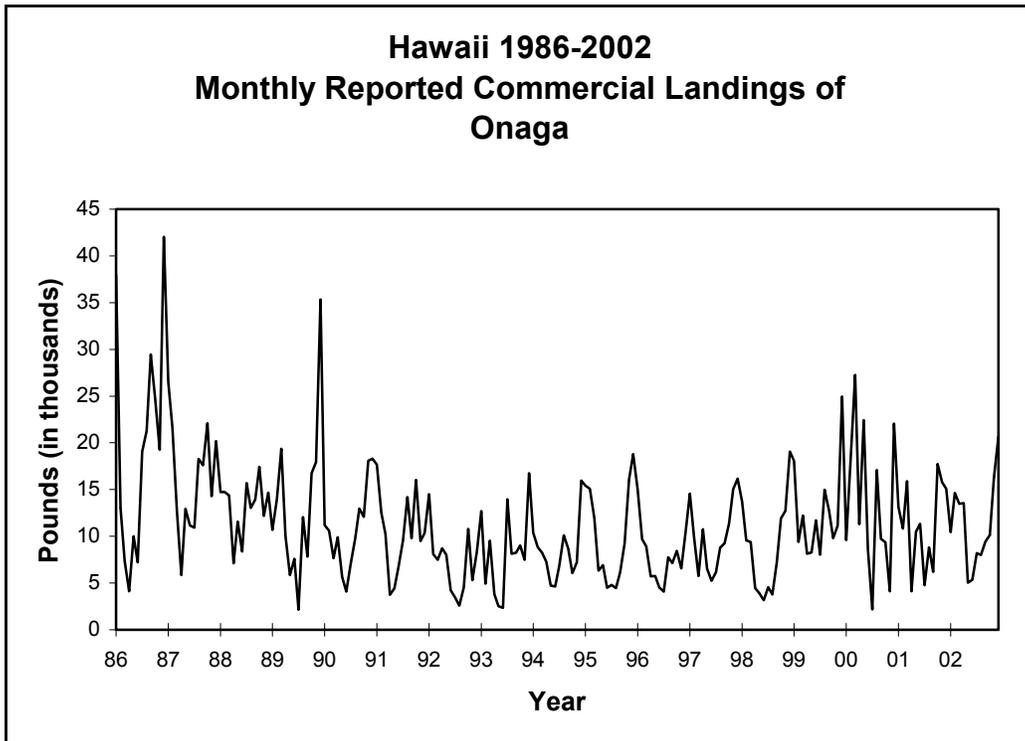


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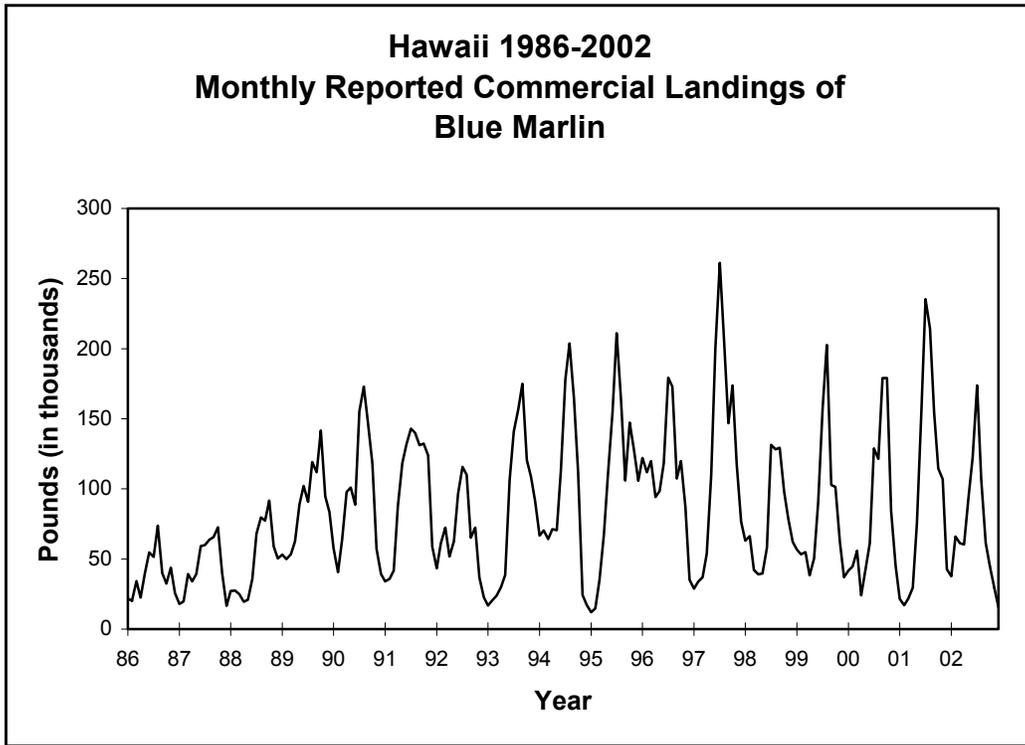


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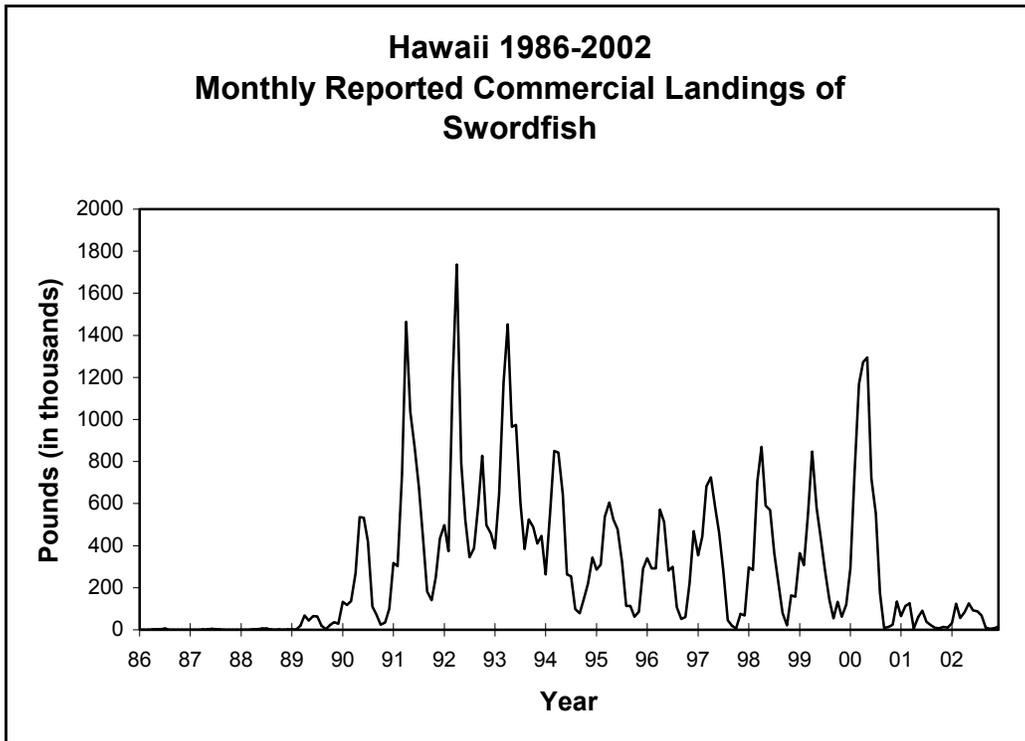


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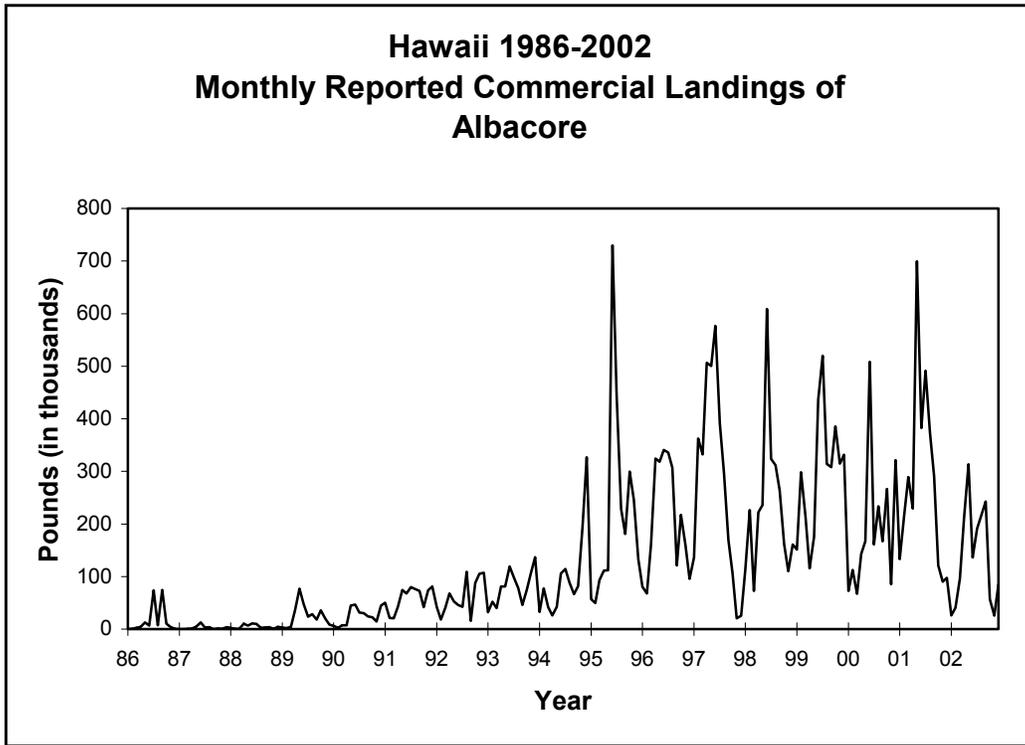


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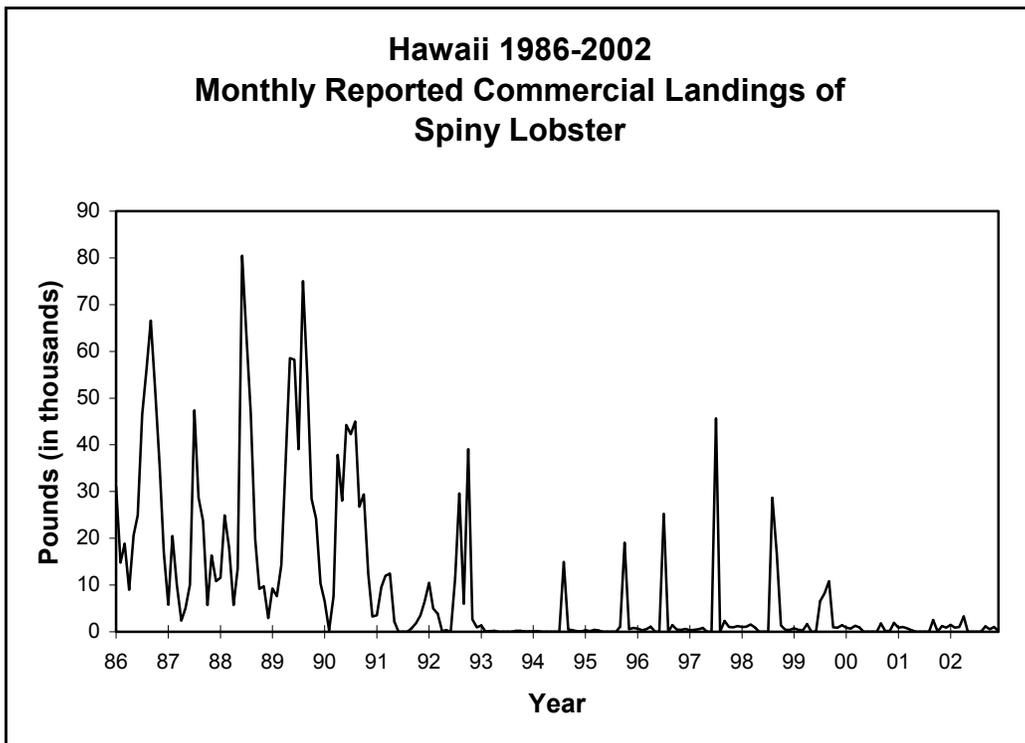


Figure V.4.14

